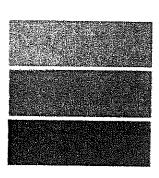
## SOURCE EVALUATION RESULTS

PREPARED BY

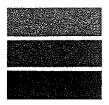


#### Envisage Environmental Incorporated

P.O.Box 152 Richfield, Ohio 44286 Phone (216) 526-0990

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#### Envisage Environmental Incorporated P.O. Box 152 Richfield, Ohio 44286 Phone (216) 526-0990



January 7, 1991

Mr. Ed Price Hukill Chemical Company 7013 Krick road Bedford, Ohio 44146

Dear Mr. Price:

The following report is the result of the EPA Methods 18, Measurement of Organic Compounds, and Method 21, Determination of Volatile Organic Compound Leaks. Testing was conducted at the above location on December 13, 1990.

The results are true and accurate to the degree specified in the pertinent section of the <u>Code of Federal Regulations</u> in force at the time of testing concerning the above test methods.

I look forward to answering any questions you may have and assisting you in the future.

Respectfully submitted,

Frank J. Hezoucky

Environmental Project supervisor

ENVISAGE ENVIRONMENTAL INCORPORATED

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#### DESCRIPTION OF PROGRAM



#### DESCRIPTION OF PROGRAM

On December 13, 1990 Envisage Environmental Inc. Conducted an EPA method 18 Measurement of Organic Compounds on the exhaust of the LUWA machine. Three test runs were conducted on this date each run lasting one hour. Testing consisted of drawing the exhaust gases from the LUWA through a charcoal tube with a personal sampling pump. The organic components caught on the charcoal were analyzed by gas chromatography (GC). Before and after each sample run flow rates were taken, enabling the emission rate of Volatile Organic Compounds to be calculated. This was done using EPA Method 2A, Direct Measurement of Gas Volume Through Pipes and Small Ducts.

The second phase of testing conducted on December 13, 1990 consisted of EPA Method 21 Determination of Volatile Organic Compounds leaks. This was done by using a Foxboro Portable Flame Ionization Analyzer calibrated to 100 ppm of methane. Testing was conducted on the various process equipment, valves, flanges and other connections throughout the plant.

Emission testing was determined pointless on the Still Line exhaust due to the unmeasurable flow rate of the unit.



## TEST RESULTS SUMMARY



#### TEST RESULTS SUMMARY

Hukill Chemical Company 7013 Krick Road Bedford, Ohio LUWA Exhaust

Volitile Organic Compound Emissions Conducted - December 13, 1990

PARAMETER	RUN # 1	RUN # 2	RUN # 3
Total Volitile Organic Compounds Pounds/hour	0.6262	0.6808	0.7152
Ethanol Emissions Pounds/hour	0.0078	0.0169	0.0171
Methyl Ethyl Keytone Emissions Pounds/hour	0.0001	0.0126	0.0108
Ethyl Acetate Emissions Pounds/hour	0.0087	0.0126	0.0124
Toluene Emissions Pounds/hour	< 1.59E-06	4.79E-04	3.75E-04
N-Butyl Acetate Emissions Pounds/hour	* < 3.52E-06	1.15E-05	8.93E-06
Xylene Emissions Pounds/hour	* < 3.52E-06	1.15E-05	8.93E-06
Acetone Emissions Pounds/hour	0.2247	0.3504	0.3901
Methyl Isobutyl Keytone Emissions Pounds/hour	* < 2.77E-06	1.06E-05	9.82E-06
rest as Hexane Emissions Pounds/hour	0.3849	0.2883	0.2847

<sup>&</sup>lt; DENOTES BELOW DETECTIBLE LIMIT
\* NOT included in total lb/hr Volitile Organic Compounds</pre>



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#### TEST RESULTS

#### Hukill Chemical

#### LUWA Exhaust

#### Volitile Organic Compound Emissions

DAT	E: [	December 13, 1990	Symbol	Units	RUN # 1	RUN # 2	RUN # 3
	Tir	ne of Day			1038 1138	1146 1246	1250 1350
1	Pur	mp Volume-dry,std.	Pvstd	cu. ft.	0.2440	0.2474	0.2464
2	F٦١	ue Gas Volume-Std.	SCFM	cu. ft.	1.5470	1.6592	1.6630
	1	Ethanol - Concentration - Rate	Cs E	gr/dscf lb/hr	0.586 0.0078	1.191 0.0169	1.202 0.0171
	2	Methyl Ethyl Keyto - Concentration - Rate	one Cs E	gr/dscf lb/hr	0.130 0.0001	1.212 0.0126	1.124 0.0108
	3	Ethyl Acetate - Concentration - Rate	Cs E	gr/dscf lb/hr	0.653 0.0087	0.885 0.0126	0.870 0.0124
	4	Toluene - Concentration - Rate	Cs E		< 0.00012 < 1.59E-06	0.034 4.79E-04	0.026 3.75E-04
	5	N-Butyl Acetate - Concentration - Rate	Cs E	gr/dscf lb/hr	< 0.00027 < 3.52E-06	0.00081 1.15E-05	0.00063 8.93E-06
	6	Xylene - Concentration - Rate	Cs E	gr/dscf lb/hr	< 0.00027 < 3.52E-06	0.00081 1.15E-05	0.00063 8.93E-06
	7	Acetone - Concentration - Rate	Cs E	gr/dscf lb/hr	16.948 0.2247	24.636 0.3504	27.364 0.3901
	8	Methyl Isobutyl Ke - Concentration - Rate	eytone Cs E	gr/dscf lb/hr	< 0.00021 < 2.77E-06	0.00075 1.06E-05	0.00069 9.82E-06
	9	rest as Hexane - Concentration - Rate	Cs E	gr/dscf lb/hr	29.02689 0.3849	20.27016 0.2883	19.97520 0.2847
		✓ DENOTES BELOW DE	TECTIBLE	ITMIT	-	4	

< DENOTES BELOW DETECTIBLE LIMIT



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#### LABORATORY SECTION



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# hermo Analytical Inc.

MA/ERG

777 Exchange Street

teveland, OH 44125-3337

216) 447-0790

Envisage Environmental PO Box 152 Richfield, Ohio 44256

Attn: Mr. Tom Holder

12/17/90 Date Collected: Unknown Date Received:

Methyl Ethyl Ethyl Acetate PARAMETER (La N-Butyl Acet Methyl Isobu Rest as Hexa Toluene Acetone Ethanol Xylene

PARAMETER (Sm.

Methyl Ethyl Ketone Ethyl Acetate Ethanol

oluene

N-Butyl Acetate Xylene

Methyl Isobutyl Ketone Rest as Hexane Acetone

Results reported in milligrams ND = non-detectable.

Date: January 2, 1991

TMA ID: 8865:01-08 CLIENT ID: 90-1789-2312

Back

22222222

arqe Tubes)	RUN 3	#1	RUN	#2	RUN	#3	RUN #	4
	Front	-Back	Front	Back	Front	Back	Front	Ba
	4.7	0.66	13	1.8	13	1.9	QN	2
1 Ketone	1.8	0.17	17	1.7	16	1.7	ON N	Z
te	8.6	0.87	12	1.2	12	1,3	QN	z
	<0.0019	<0.0019	0.54	<0.0019	0.42	<0.0019	QN	Z
tate	<0.0042	<0.0042	0.013	<0.0042	0.010	<0.0042	QN	Z
	<0.0019	<0.0019	0.0050	<0.0019	0,0040	<0.0019	ON	_
	150	20	210	29	250	36	ON	Z
utyl Ketone	<0.0033	<0.0033	0.012	<0.0033	0.011	<0.0033	QN	2
ane	300	300 36	220	. 52	210	29	N QN	Z
mall Tubes)	RUN #1	1#	RUN	RUN #2	RUN	RUN #3	RUN #	<
	Front	Back	Front	Back	Front	Back	Front Ba	Ba

RUN	Front	3.2	0.56	0.74	<0.0019	<0.0042	<0.0019	110	<0.0033	6
#1	Back	1.4	0.029	0.23	<0.0019	<0.0042	<0.0019	34	<0.0033	•
RUN #1	Front	2.5	090.0	0.62	<0.0019	<0.0042	<0.0019	64	<0.0033	,

Back

2222222

88888888

<0.0019 0.057 0.12

2.9 0.20 0.47 (0.0019 (0.0042 (0.0042

<0.0042 <0.0019

(0,0019  $0.17 \\ 0.25$ 

<0.0042
<0.0019
51
<0.0033
<0.0033</pre>

100 <0.0033 54

<0.0033 26

46

42 81 Approved by: / IM

Chanks
I showstown Managor

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## LABORATORY SUMMARY SHEET Hukill Chemical

#### LUWA Exhaust

### Volitile Organic Compound Emissions

DATE: December 13, 1990	Symbol	Uni	ts	RUN # 1	RUN # 2	DIM # =
<pre>1 Sampling Time 2 Barometric Processing</pre>	t	min	ıtes	60.0	60.0	RUN # 3 60.0
<ul><li>2 Barometric Pressure</li><li>3 Sample Pump Volume</li></ul>		in.		29.45	29.45	29.45
4 Pump Temperature	Pv	cu.		0.2390	0.2390	0.2390
, , , , , ,	Tm	degre		49.0	42.0	44.0
5 Stack Temperature		degre degre		509.0	502.0	504.0
	Ts	degree		48.0	48.0	47.0
6 Sample Weight:	Mn	<b>-</b>	.5 K	508.0	508.0	507.0
- Ethanol	•	mg		9.26	19.10	19.20
- Methyl Ethyl Ke - Ethyl Acetate	ytone	mg		2.06	19.43	17.96
- Toluene		mg 		10.32	14.19	13.89
- N-Butyl Acetate		mg mg	<	0.0019	0.54	0.42
- Xylene		mg	< <	0.0042 0.0019	0.013	0.010
- Acetone		mg	`	268.0	0.0050	0.0040
- Methyl Isobutyl I	Keytone	mg	<	0.0033	395.0	437.0
<pre>- rest as Hexane &lt; DENOTES BELOW DETE</pre>	CTIBLE LIM	mg fit		459.0	0.0120 325.0	0.0110 319.0



			!

# EPA METHOD 21 SUMMARY



EPA METHOD 21 COMPANY Hykill Chanical
CALIBRATED TO TYPE GAS_17. Nothing
CONCENTRATION
DESCRIPTION OF SOURCE-Id Lucy most bottoms punt, Value, dippan
· · · · · · · · · · · · · · · · · · ·
source concentration feeking 450 ppm (backglound 40ppm) on shaft drive.
Scale 0-1000 pgm
RESPONSE ON OVA: Fluctations due to dents.  NOTES DUQ GNALYZED ON Short COUPY. Concentration cycles between 100 and 250 fpm. Concentrations also cycles between 300 and 400 ppm. Garage Done were short to my John resistant from wind.
Deip pan helow shaft pegged the instrument over 1000ppm.
Values - 60-80ppm #110 \$ #117
Behind pump against wall - 100ppm
Deviv gate by page - 120-140ppm



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EPA METHOD 21
COMPANY Hukill
CALIBRATED TO TYPE GAS
CONCENTRATION
DESCRIPTION OF SOURCE New Luna System. Bottons pumpaul Fulls Valves.
SOURCE CONCENTRATION
RESPONSE ON OVA
NOTES
Short => 80-100 ppm, No deip pan as in ald system. Valves => 100 ppm Under purp Greating => 100 ppm > 80 ppm
Valves => 100 ppm
under pup Greating \$ 100 pfm > 90 pfm
· .



EPA METHOD 21
COMPANY HAKII
CALIBRATED TO TYPE GAS
CONCENTRATION
- Huzwins Wast - TANK FROM
SOURCE CONCENTRATION ON CHILGIOUND GOM
5(ali 0-10 ppm
RESPONSE ON OVA
NOTES
V-114: Trank value Oppor V-614 = Trank value 5:4ppm Pung Value Oppor V-120 = Trank value 7.0ppm
V-314: Topul value 5,400m Feed Value in Dock - 18 (Some as budgeoned
V-314: Tout vilve 5,4 ppm of ana)
Ping Value 5. Z ppm V-4/11: Turnk vulve 6 B ppm
2 - Vila La
V-514: Timk value 6.0.7m
V-514: Timk value 6.0,7m
Ping Value 5.7 ppm  V-4/V: Termit Value 6.097m  V-5/4: Time Value 6.097m  Ping value 6.097m  Ping value 6.097m  V-4000: 5.2 ppm
V-4000 : 5.2 pm



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EPA METHOD 21
CALIBRATED TO TYPE GAS
CONCENTRATION
CONCENTRATION
DESCRIPTION OF SOURCE Civing ting Pump Let Valves
•
SOURCE CONCENTRATION_
BACKGround 1800m
0-100 ppm Stall
RESPONSE ON OVA
NOTES V-117 indic - 19 Mm.
V-17 : Valves 18-20 pam
NOTES V-112 valve - 18ppn. V-117: Valves 16-20ppm Phys 400pm - 600ppm (yeling around pryp)
Cam-Lock Fifting - 18 pm
Wort Feel - 1822m
Wost Ferd - 1822m EAST FRANK- 1822m
1'
TRANSFER PHM2 - 200 -> 300 pm (Shaft w/ drip TAUK)
· · · · · · · · · · · · · · · · · · ·



EPA METHOD 21
COMPANY Hukill
CALIBRATED TO TYPE GAS
CONCENTRATION
DESCRIPTION OF SOURCE TANK ma - South Hiszurdons Waste Dyk
SOURCE CONCENTRATION
6-100 scale BACK grown 1 1020m
RESPONSE ON OVA
:
NOTES V-LOO VAIVES
V-110 Valva
V-210 Valves
·
·



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EPA METHOD 21
COMPANY (fuli)
CALIBRATED TO TYPE GAS
CONCENTRATION
DESCRIPTION OF SOURCE Distillation le-boilei
SOURCE CONCENTRATION
0-100 scale Background 18 ppm
RESPONSE ON OVA
NOTES
Sande Valve at End: 30 som - 30 som
Return Valve : 20-22 mm
LOAD Valve : 30000 30-40 and 0-100 school
Sample Valve with : 30 pm -30 pm  Return Valve : 20-22 pm  LOAD Valve : 30-20 pm 0 - 100 schre  Distill Lid : 150 pm 0-1000 scale



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EPA METHOD 21
COMPANY Hukill
CALIBRATED TO TYPE GAS
CONCENTRATION
DESCRIPTION OF SOURCE
New LINNA Feed and & BACKHISH TANK
New Lawa Feed pump. & BACKWASH TANK Old Luwa Feed pump.
COURCE CONCENSEDANTON
SOURCE CONCENTRATION
Pia-Kickan & Manage
Brockground 40 ppm
RESPONSE ON OVA
NOTES
Shaft: 40-60pm
Shaft: 40-60gan Valves: 40 ggm
Brikwast Tankvent: 100-200pm.
Valves 40ppm
Old LnwA Feed pmp = 20 - 40pm



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EPA METHOD 21
COMPANY Hukill
CALIBRATED TO TYPE GAS
CONCENTRATION Reclaim Feed lines
DESCRIPTION OF SOURCE
SOURCE CONCENTRATION
Budgeond 40 ppm
RESPONSE ON OVA
NOTES
Reclaim Feed Lines (6)
all showed 12pm - 40pm.
V-1,000
V-4000
EAST & West Feed
A 110
<u> </u>
<u>V40</u>



			6	s.

EPA METHOD 21
COMPANY Hukill
CALIBRATED TO TYPE GAS
CONCENTRATION
DRUM PROCESSING MEN
·
SOURCE CONCENTRATION
Background 40,20m
0-1000 sale
RESPONSE ON OVA
NOTES Valves to phys
Values 1 Coderm
Valves 2 1,000m
Valves 1 Goffm Valves 2 Goffm Valves 3 45 ffm
Valve i 40 oc.
Valve 4 40 psh Surple Valve 40 psh
This is all
Valve 5 Boppin
71
Share Tank = greater than lowgram



COMPANY HUVILL  CALIBRATED TO TYPE GAS  CONCENTRATION  DESCRIPTION OF SOURCE TANK (OZ, fcb  SOURCE CONCENTRATION  0-100 Scali  BACKGROWALS 14/19M  RESPONSE ON OVA  NOTES  BACKGROWALS Compatents 1-5  Mading & Wine Some as backgrowns  (supertaineds 1-3, bottom valves  Background ready	EPA METH		
DESCRIPTION OF SOURCE TANK (OR, JCh  SOURCE CONCENTRATION_ 0-100 S(ali  BACKGGGOWALS 14 Jim  RESPONSE ON OVA_  NOTES_ Bottom Valves, Compartments 1-5  Linding 5 Was some as background  6 Compartments 1-3, Lottom Valves			
DESCRIPTION OF SOURCE TANK (OR, fcb  SOURCE CONCENTRATION_ 0-100 scali  BACKARAMAS 14/11M  RESPONSE ON OVA_  NOTES_ Bottom Valves, Compantants 1-5  Linding 5 War Some as backaround  6 compartants 1-3, Lottom Valves		•	
SOURCE CONCENTRATION_ 0-100 S(ali  BACKGROUNDS 14pim  RESPONSE ON OVA_  NOTESBottom Valves, Comportants 1-5  Mading & War Some as background  6 comportants 1-3, Lottom Valves	CONCENTE	ROITAX	
SOURCE CONCENTRATION_ 0-100 S(ali  BACKGROWALS 14/19M  RESPONSE ON OVA_  NOTESBattâm Valves, Compostments 1-5  Moding s wire some as background  6 compostments 1-3, bottem valves			
SOURCE CONCENTRATION_ 0-100 S(ali  BACKGROWALS 14/19M  RESPONSE ON OVA_  NOTESBattâm Valves, Compostments 1-5  Moding s wire some as background  6 compostments 1-3, bottem valves	DESCRIPT	TION OF SOURCE TANK SOR, fob	
SOURCE CONCENTRATION  0-100 s(ali  Backgrounds 14)im  RESPONSE ON OVA  NOTES  Backgrounds 1-5  Unding 5 Wire Some as background  6 compartments 1-3, bottom valves	-	· · · · · · · · · · · · · · · · · · ·	
SOURCE CONCENTRATION  0-100 scali  BACKAGLOWALS 14pm  RESPONSE ON OVA  NOTES  Boltom Valves, Compantants 1-5  Mading & Wine Same as backaglound  6 compartants 1-3, Lotten valves			
Backgrounds 14ppm  RESPONSE ON OVA  NOTES  Bettem Valves, Compartments 1-5  Unding & Were some as background  6 Compartments 1-3, Lotton Valves	*****		
Backgrounds 14ppm  RESPONSE ON OVA  NOTES  Battam Valves, Compantments 1-5  Mading & Were some as background  6 Compartments 1-3, Lotton Valves			
Backgrounds 14pm  RESPONSE ON OVA  NOTES  - Bottom Valves, Companion 1-5  Unding & Were some as background  6 Compariments 1-3, Lotton Valves			
Backgrounds 14ppm  RESPONSE ON OVA  NOTES  Bettem Valves, Compartments 1-5  Unding & Were some as background  6 Compartments 1-3, Lotton Valves			
Backgrounds 14ppm  RESPONSE ON OVA  NOTES  Bettem Valves, Compartments 1-5  Unding & Were some as background  6 Compartments 1-3, Lotton Valves	SOURCE C	CONCENTRATION	
BACKGROWALS 14/19M  RESPONSE ON OVA  NOTES  Bottom Valves, Compartments 1-5  Mindings were some as background  6 compartments 1-3, bottom valves	0-100	) S(ali	
BACKGROUNDS 1499M  RESPONSE ON OVA  NOTES  Bettom Valves, Compantments 1-5  Modings were some as background  Compartments 1-3, Lottom Valves			
RESPONSE ON OVA	BACKARN	wals 14m	
NOTES - Bittim Valves, Compartments 1-5  Modings were some as background  E compartments 1-3, bottom Valves	- Joynes		
NOTES - Bittim Valves, Compartments 1-5  Modings were some as background  E compartments 1-3, bottom Valves			
NOTES Bittim Valves, Compartments 1-5  Mendings were some as background  6 compartments 1-3, bottom Valves	DECDONCE	C ON OUR	
Bottom Valves, Compartments 1-5  Mording's were some as background  6 compartments 1-3, bottom valves	KLSPUNSI	. ON OVA	
Bottom Valves, Compartments 1-5  Mording's were some as background  6 compartments 1-3, bottom valves			
Madings were some as background  6 compartments 1-3, bottom values	NOTES	Note to the total of the second	
6 Compartments 1-3, Lotton Valves	- BOFFUM	Valves, comparants 1-5	
6 Congratants 1-3, Lotton Valves	<u> </u>		
	Mading s	Were Some as background	
	<del>,                                      </del>		
	6 Compa	retmets 1-3, bottom Valves	
Bucky cound ready	•		
	Buk	cound reading	
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EPA METHOD 21	
COMPANY Hukil	
CALIBRATED TO TYPE GAS	
CONCENTRATION	-
DESCRIPTION OF SOURCE fund from	
·	
SOURCE CONCENTRATION	
BOOKEL CONCENTRATION	
U-10c Scoli	
Copin background	
The Difficulty	
DEGEOGRAP OF AN	
RESPONSE ON OVA	
NOTES 0 -1000 Scale	
Reboiler Feed Line > 1000 ppm	
LUWA Feed 700 - 200ppm	
Flush TANK 500-600pm	
Floor Grating 200-400 ppm	



Envisage Environmental Incorporated P.O. Box 152 Richlield, Ohio 44286 Phone (216) 526-0990

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EPA METHOD 21  COMPANY
CALIBRATED TO TYPE GASCONCENTRATION
DESCRIPTION OF SOURCE Lubratory
SOURCE CONCENTRATION
20 ppm brekground
RESPONSE ON OVA
NOTES
Waste barrell 51000ppm.



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					**	<b>⊍</b>
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# EMISSIONS SAMPLING NOMENCLATURE



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## Emissions Sampling Nomenclature - continued

M = Molecular weight of water, 18 lb/lb-mole.

P<sub>bar</sub> = Barometric Pressure, in. Hg.

P = Pressure differential from gas stream to atmosphere, (static pressure) in.H<sub>2</sub>0.

 $P_s$  = Absolute gas stream pressure,  $(P_{bar} + P_g/13.6)$  in.Hg.

P = Absolute pressure at standard conditions, 29.92 in. Hg.

 $P_{\perp}$  = Density of water, 0.0022 lb/ml.

^p = Average of the square roots of the velocity head readings,  $(\sqrt{\bar{p}})$  (in.H 0<sub>2</sub>).

Q = Volumetric flow rate at gas stream conditions, A.C.F.M.

Q = Dry volumetric gas flow rate corrected to standard conditions, S.C.F.M.

R = Ideal gas constant, 21.85 in.  $Hg-ft^3/OR-1b-mole$ .

t = Total sampling time, minutes.

 $T_m$  = Average dry gas meter temperature,  ${}^{0}R$ .

 $T_s$  = Average absolute gas stream temperature,  ${}^{0}R$ .

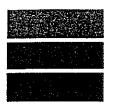
T<sub>std</sub> = Standard absolute temperature, 528<sup>0</sup> Rankine.

V = Volume of water collected in impingers & silica gel, ml.



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# Envisage Environmental Incorporated P.O. Box 152 Richfield, Ohio 44286 Phone (216) 526-0990



September 18, 1991

Mr. Ed Price Hukill Chemical Company 7013 Krick Road Bedford, Ohio 44146-4493

Dear Mr. Price:

The following report is the result of the air flow evaluation conducted on September 13, 1991 at the above facility. Testing was performed at the Batch Still Vent Tank.

The results are true and accurate to the degree specified in the pertinent sections of the <u>Code of Federal Regulations</u>, in force at the time of testing concerning Direct Measurement of Gas Volumes Through Pipes and Small Ducts.

I am looking forward to answering any questions you may have and assisting you in the future.

Respectfully submitted,

Robert C. Hovan

Project Leader

ENVISAGE ENVIRONMENTAL INC.

DECEMPENT SEP 1 S 1881

Exhibit D-14

HUKILL CHEMICAL CORP.

### DESCRIPTION OF PROGRAM

On September 13, 1991 Envisage Environmental Inc. conducted EPA Methods 2A, Direct Measurement of Gas Volume Through Pipes and Small Ducts evaluation at the Hukill Chemical facility located in Bedford, Ohio. The purpose of these tests was to determine the Volatile Organic emission rate of the Batch Still Vent Tank.

The Envisage testing team consisted of Messrs. Robert Hovan, and Mark Geirke. Mr. Ed Price, Hukill Chemical, coordinated the testing.

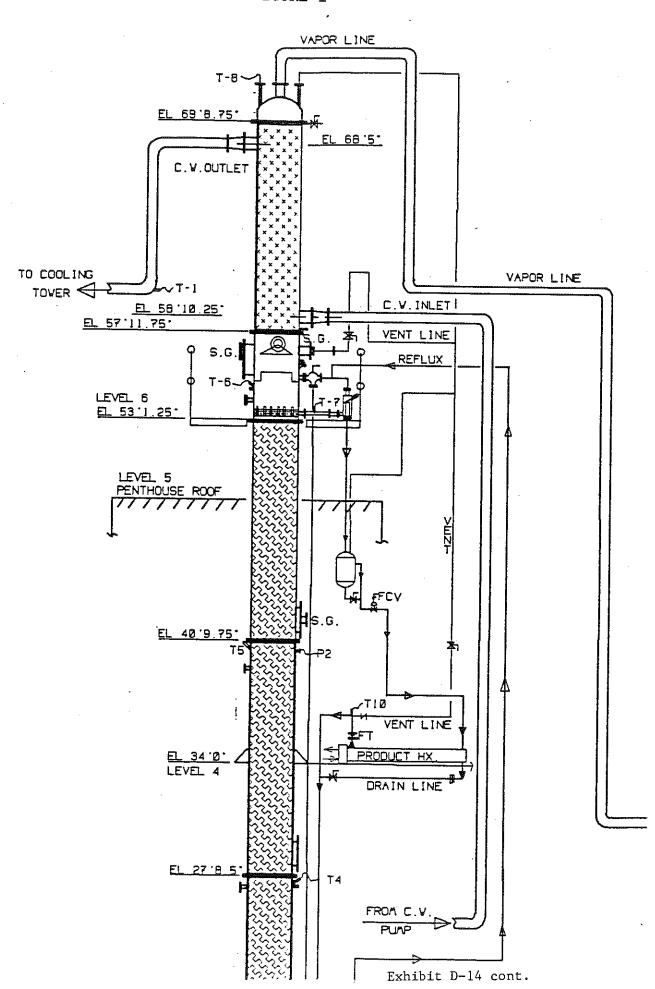
The testing was performed at one of the three conservation vents (figure 2) while the other two vents were capped shut. The initial run consisted of operating the Distillation Tower at normal parameters, steam flow 800 lbs/hr at 70 degrees fahrenheit. The temperature is recorded at thermocouple #8 (T-8) (figure 1) at the top of the distillation tower. The process was operating at these conditions for three hours prior to conducting run #1. The dry gas meter was set up and monitored for one hour. There was no recordable flow during this time period (9:45am - 10:45am).

The second run (11:00am - 11:45am) consisted of increasing the steam loading by 25% to find a process point where venting from the Batch Still Vent Tank would occur. The parameters for the second run were a steam flow of 1009 lbs/hr at a T - 8 temperature of 95 degrees fahrenheit. At these conditions, the Batch Still Tank exhibited a flow rate of 0.3 cubic feet/minute after approximately 45 minutes.

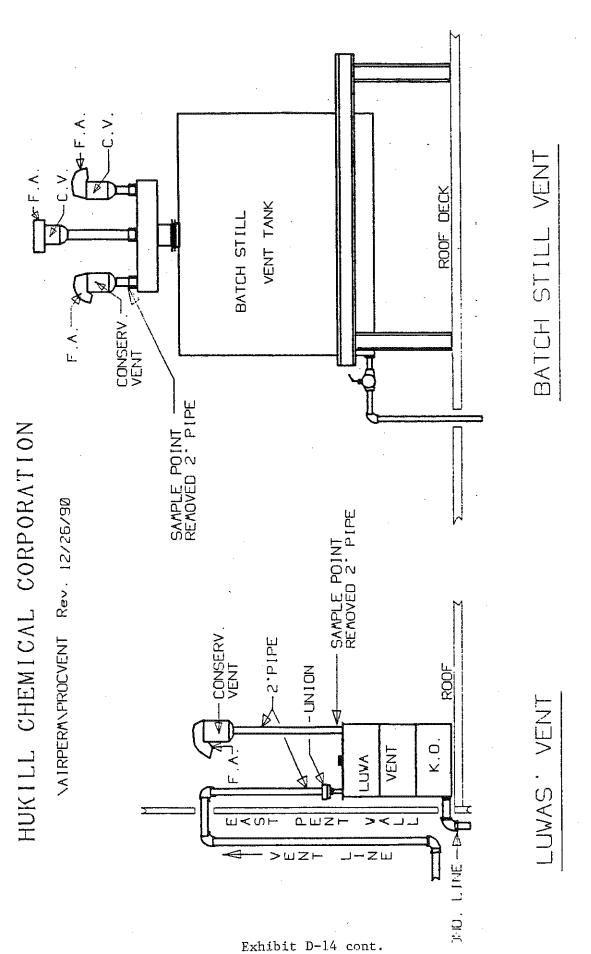
Exhibit D-14 cont.



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LOCATIONS FOR COMPLIANCE WITH ORGANIC AIR EMISSION REGS LSI

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DISTILLATION TOWER CONTTROL SHEET

17842	REMARKS: 0.H./POT %,2-PHASE,	IANK YUL. / CHAIMSE,	<b>%</b>	M.B. R. neus	<b>8</b>	19.87	97.87 8 HEC/2	6,0 97.84 × 1100/2	6,0 96.85 × Hach	**************************************	A enteron	<u> </u>	 ₩.		£ &	<b>8</b>	**************************************	& &	* * * * * * * * * * * * * * * * * * *	%	***************************************	
1	PROD.	0-10 Mn.		,	200	6,0	6,0	6.0	0,9													
MATERIAL:	REFX. PROD. FLOW FLOW	0-50 0-10 Gals./Min.		5	٤	1/49	6+11	01														
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် အ					1/2/	12/	72/105	72 105	18													
İ	IN OUT W-1W-2	0-200			<u> </u>	6.3	27	73														
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NENT  LIGHTION AREA:  LIATION AREA:  BO Feed Pump  BO LN430 Btms. Disch.  BO LN500 Btms. Disch.  BO Ualue From U-6000 I  Ualue From U-1001 I  Ualue From U-11001 I  Walue From U-11001 I  Wal	3 i	ror lesting:/	Calib. Gas	3/		OUTSIGE	lemp. (47.7-
Description of the part   Pa	<b>—</b> :	by: 15013 40VAN		_		1/1///	7. 5-10 MB E
The first   The first   The first   The first   The first	- 1	by: MARK MATH			TEST	UISIBLE	
11.671.0M AREA:				PROCESS	UALUE	LEAK	
	MPONENT	LOCATION	EQUIPMENT	STREAM	(bbm)	(W/W)	COMMENTS
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Distillation Area Background	STILLATION	I AREA:					
430         Feed Pump         01d Luwa         4.7         3 C - 4.0           438         Bottons Pump         01d Luwa         1         5 C - 4.0         1           438         LN438 Btns. Disch. Line to U110H         01d Luwa         1         3 C - 4.0         1           438         LN438 Btns. Disch. Line to U110H         New Luwa         1         3 C - 4.0         1           580         Feed Pump         New Luwa         1         2 C - 3.0         1           580         Feed Pump         New Luwa         1         2 C - 3.0         1           580         Feed Pump         New Luwa         1         2 C - 3.0         1           580         Backwash Line Ualue         New Luwa         1         2 C - 3.0         1           580         Backwash Line Ualue         New Luwa         1         2 C - 3.0         1           580         Battons Pump         New Luwa         1         2 C - 3.0         1           580         LN508 Btns. Disch. Line to U110H         New Luwa         1         2 C - 3.0         1           580         LN508 Btns. Disch. Line to U110H         New Luwa         1         2 C - 3.0         1           580         LN50	鹿	Distillation Area Background	£	≨	102	A.	
430 Bottoms Pump 430 Linas Pump 430 Linas Bitms. Disch. Line to U110H Old Liuwa 430H Linas Bitms. Disch. Line to U110H Old Liuwa 430H Linas Bitms. Disch. Line to U110H Old Liuwa 430H Linas Bitms. Disch. Line to U110H Old Liuwa 580 Feed Pump Ualue 8ackwash Line 8ackwash Lin	LN430		1	571	20	01	CRIP DAS
4360 LN430 Btms. Disch. Line to U117 01d Luwa   \$57-40   14360 LN430 Btms. Disch. Line to U177 01d Luwa   \$57-40   14360 LN430 Btms. Drain to Drum   01d Luwa   \$57-40   14360 LN430 Btms. Drain to Drum   New Luwa   1.1	N.436	Bottoms Pump		1, (1	100.	-	,
4366 LN436 Btms. Disch. Line to U117 01d Luwa   \$15-4-0   14360 LN436 Btms. Drain to Drum   01d Luwa   \$15-4-0   14360 LN436 Btms. Drain to Drum   01d Luwa   1430 Btms. Drain to Drum   New Luwa   1430 LN 20-30   1430 Backwash Line Valve   New Luwa   1430 LN 20-30   1430 Backwash Line Valve   New Luwa   1430 LN 20-30   1430 Backwash Line Valve   New Luwa   1430 Btms. Disch. Line to U116N Rew Luwa   1430 Btms. Disch. Line to U116N Back   1430 Btms. Disch. Line Back   1430 Btms. Disch. Line Back   1430 Btms. Disch. Line Background   1430 Btms. Disch. Line Background   1430 Btms. Tk. Dike Background   1430 Btms. Disch Value   1	N4369	Disch. Line to U11		,	35-40	25	
1980   1.1430   91ms. Drain to Drum   01d Luwa   1   1   2   2   2   2   2   2   2   2	143 SB	Disch. Line to			クケー	72	
	N43 6C	Drain			3540	7	
See   Feed Pump   New Luwa   D-20/116K.   2k d-30   N deel Pump   New Luwa   D-20/116K.   2k d-30   N deel Pump   New Luwa   New New Luwa							
See   Feed Pump Valve   New Luwa   1.1   20-10   1.2	. N.S. 80			D-SLMBK.	140-10	No	
Backwash Line Value	N5 00	Feed Pump Value	1	( )	20-10		
See   Bottoms Pump		Line	1	-3	7.0-10	2	11818 11AV
S08A         LNS 00 Btms. Disch. Line to U110H         New Luwa         ''         30         ''           500B         LNS 00 Btms. Disch. Line to U117         New Luwa         ''         30         ''           500C         LNS 00 Btms. Disch. Line to U117         New Luwa         ''         30         ''           500C         LNS 00 Btms. Disch. Line to U117         New Luwa         ''         30         ''           800         Ualve From U-6000 Tank         Pipe Rack         C/F         30         ''           S1         Ualve From WEST Feed Tank         Pipe Rack         C/F         LC         LC         '           S1         Ualve From U-116M Tank         Pipe Rack         C/F         LC         LC         '           S1         Ualve From U-216M Tank         Pipe Rack         C/F         LC         LC<	N5 00	Bottoms Pump	1	17	04	7	
5008         LMS 00 Btms. Disch. Line to U117         New Luwa         LI         30         LV           500C         LNS 00 Btms. Drain to Drum         New Luwa         LI         30         LV           800         Ualve From U-6000 Tank         Pipe Rack         C/F         30         LV           SI         Ualve From WEST Feed Tank         Pipe Rack         C/F         LC         LV           SI         Ualve From WEST Feed Tank         Pipe Rack         C/F         LC         LV           SI         Ualve From U-210M Tank         Pipe Rack         C/F         LC         LC         LC           Area         Distillation Area Sump - Pump Area         NA         LC         LC <td><b>M</b></td> <th>Disch. Line to U111</th> <th></th> <td>1,</td> <td>30</td> <td>2</td> <td></td>	<b>M</b>	Disch. Line to U111		1,	30	2	
686         LNS 08 Btms. Drain to Drum         New Luwa         0.1         30         Mg           088         Ualue From U-6080 Tank         Pipe Rack         CF         3 0         C           51         Ualue From U-4080 Tank         Pipe Rack         CF         2C         U           51         Ualue From WEST Feed Tank         Pipe Rack         CF         2C         U           51         Ualue From WEST Feed Tank         Pipe Rack         CF         2C         U           51         Ualue From U-116M Tank         Pipe Rack         CF         2C         U           18M         Ualue From U-216M Tank         Pipe Rack         CF         2C         C           18M         Ualue From U-216M Tank         Pipe Rack         CF         2C         C           Anna         Ualue From U-216M Tank         Pipe Rack         CF         2C         C           Anna         Ualue From U-216M Tank         Dimp Rikes         NA         NA         A           Anna         Feed/Btms. Tk. Dike Background         West Feed Tank Ualue         E. Feed Tk.         CF         S         C           East Feed Tank Ualue         E. Feed Tk.         CF         CF         S         C	<b>12.00</b>	Disch. Line to		17	10	z	
086Ualve From U-6080 TankPipe RackCF3 OASTUalve From U-4080 TankPipe RackCFLOUSTUalve From WEST Feed TankPipe RackCFLOUSTUalve From WEST Feed TankPipe RackCFLOU18MUalve From U-110M TankPipe RackCFLOU18MUalve From U-218M TankPipe RackCFLOU4MSTE FEED AND BOTTOMS STO. TANK DIKES:ARLOLOIArea Feed/Btms. Tk. Dike BackgroundW. Feed Tk.CFSIEDEast Feed Tank UalveE. Feed Tk.CFSI	N5 8 8 C	: 1	Hew Luwa	17	30	2	
888Ualve From U-6080 TankPipe RackCF3 OASIUalve From U-4000 TankPipe RackCFLOLOSIUalve From WEST Feed TankPipe RackCFLOUSIUalve From WEST Feed TankPipe RackCFLOU18MUalve From U-216M TankPipe RackCFLOUAreaDistillation Area Sump - Pump AreaNANALONAAreaFeed/Btms. Tk. Dike BackgroundNANALOCFCSVEEast Feed Tank UalveE. Feed Tk.CFCFCSV							inter, Wignis pro
ST Value From U-4000 Tank Pipe Rack CF 20 C ST Value From WEST Feed Tank Pipe Rack CF 2C C ST Value From WEST Feed Tank Pipe Rack CF 2C C ST Value From U-110M Tank Pipe Rack CF 2C C ST Value From U-210M Tank Pipe Rack CF 2C C ST Value From U-210M Tank Pipe Rack CF 2C C ST CA C ST Value From U-210M Tank Pipe Rack CF 2C C ST CA C ST C	9999	From V-6088	Pipe Rack	CF	30	V0	
ST Value From EAST Feed Tank Pipe Rack CF LC U  ST Value From WEST Feed Tank Pipe Rack CF LC U  SM Value From U-110M Tank Pipe Rack CF LC U  Area Distillation Area Sump - Pump Area NA LSC  AREA DISTILLATION Area Sump - Pump Area NA LSC  AREA Feed/Birs. Tk. Dike Background NA NA Feed Tk. CF SS V  ED West Feed Tank Value E. Feed Tk. CF SS CC  East Feed Tank Value E. Feed Tk. CF SS CC  East Feed Tank Value E. Feed Tk. CF SS CC  East Feed Tank Value E. Feed Tk. CF SS CC  East Feed Tank Value E. Feed Tk. CF SS CC  EAST ST CF CF CS CC  East Feed Tank Value E. Feed Tk. CF SS CC  EAST ST CF CF CS CC  EAST ST CF CF CS CC  EAST FEED AND EAST FEED TR. CF CS CC  EAST FEED TANK VALUE E. Feed Tk. CF CS CC  EAST ST CF CF CS CC  EAST ST CF CF CF CS CC  EAST FEED TANK VALUE E. Feed Tk. CF CS CC  EAST ST CF CF CS CC  EAST ST CF CF CF CS CC  EAST ST CF CF CS CC  EAST FEED TANK VALUE E. Feed Tk. CF CS CC  EAST ST CF CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST ST CF CF CS CC  EAST ST CF CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST ST CF CF CS CC  EAST ST CF CF CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC  EAST FEED TANK VALUE E. FEED TK. CF CS CC	4089	Value From V-4000 Tank	Pipe Rack	K-9	0	1.1	
ST Valve From WEST Feed Tank Pipe Rack CF 20 4  18M Value From U-116M Tank  18M Value From U-218M Tank  Area Distillation Area Sump - Pump Area MA NA NA NA  HASTE FEED AND BOTTOMS STO. TANK DIKES:  Area Feed/Btms. Tk. Dike Background MA NA  ED West Feed Tank Value W. Feed Tk. CF < S NA  ED East Feed Tank Value E. Feed Tk. CF < S NA  ED East Feed Tank Value CF < S NA  ED Feed Tk. CF < S NA  ED Feed Tank Value CF < S NA  ED Feed Tk. CF < S NA  ED FEED FEED TK. CF < S NA  ED FEED	AST	Value From EAST Feed Tank	Pipe Rack	一つで	27	2	
18M Ualve From U-218M Tank Pipe Rack C/ 10 7  Area Distillation Area Sump - Pump Area NA	EST	From	Pipe Rack	CF	3	2	
Area Distillation Area Sump - Pump Area NA	I	From	Pipe Rack	20	07	7	
Area Distillation Area Sump - Pump Area NA NA NASTE FEED AND BOTTOMS STO. TANK DIKES:  Area Feed/Btms. Tk. Dike Background NA NA NA NA NA NA STORM NA	1218M	From U-218M		C/E	20	2	
Area Distillation Area Sump - Pump Area NA NA NASTE FEED AND BOTTOMS STO. TANK DIKES:  Area Feed/Btms. Tk. Dike Background MA Feed Tk. C/= < S / V   C    ED West Feed Tank Value E. Feed Tk. C/= < S / V    ED East Feed Tank Value E. Feed Tk. C/= < S / V    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED East Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST Feed Tank Value E. Feed Tk. C/= < S / C    ED EAST FEED TANK VALUE E. E. Feed Tk. C/= C/= C / C / C / C / C / C / C / C /							
WASTE FEED AND BOTTOMS STO. TANK DIKES:MANAAreaFeed/Btms. Tk. Dike BackgroundMANAEDWest Feed Tank UalueW. Feed Tk.C/=< S/		Area Sump - Pump A	æ	₹	220		. Prof. of the second s
WASTE FEED AND BOTTOMS STO. TANK DIKES:  Area Feed/Btms. Tk. Dike Background MA    ED West Feed Tank Ualue    E. Feed Tk. $CF$ $CS$ $V$ E. Feed Tk. $CF$ $CS$ $V$		i					
Area Feed/Btms. Tk. Dike Background MA NA NA STREED Tank Ualue E. Feed Tk. $CF$ $CS$ $W$	WASTE						
Feed Tank Value W. Feed Tk. C/= <.5 /V Feed Tk. C/= <.5 /V	- 1	Tk. Dike	¥	W.			
Feed Tank Value E. Feed Tk. $CF < S$ /V Feed Tank Value							
Feed Tank Value E. Feed		West Feed Tank Value	Feed		\ \ \	1/0	
		East Feed Tank Value	Feed	CF	<u>`</u>		

\AIRPERM\LEAKCHK Rev. 1\11\91 Components to be checked are pump seals, valves, open-ended pipes, relief valves, sample valves.

			a.
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Date 9-67-9/ Page 2 of

				TEST	VISIBLE	
			PROCESS	UALUE	LEAK	
COMPONENT	LOCATION	EQUIPMENT	STREAM	(ppm)	(W/W)	COMMENTS
***************************************			1	1 - 1 - 1 - 1 - 1	1	
HAZ. WASTE F	FEED AND BOTTOMS STO. TANK DIKES (CON	(Cont'd):				المتاسبية المتاسبة ال
PTRAMS	l	Port. Pump	2/3	40.	MO	
CTRANS	East Pad Transfer Pump-Cam-lock	Trans. Pump	-	30.		DRIP PAN
PU117	Circ. Pump on U-117 Bottoms Tank	U-117 Tank	-5	5	<del>ئ</del>	
UDU117	Disch. Value U-117 Tank	U-117 Tank	5	<u>ر</u>	h	
CDU117	Cam-lock on U-117 Disch . Line	U-117 Tank	٦	•	5	
E. PAD HAZ.	WASTE STORAGE TANK DIKE:					
Oike Area	HW Sto. Tk. Dike - Background	£	£	01		
UDU114	HW Storage Tk. U-114	U-114 Tank	0-115.18-3	<u></u>	011	
UDU214	HW Sto.Tk. U-214 Disch. Value	U-214 Tank	0'#/	Ţ	5	
UDU314	HW Sto. Tk. U-314 Disch Value	U-814 Tank	14.6	7	5	
UDUATA		U-414 Tank	140		5	
UDU514		U-514 Tank	5064	Ź	-5	
UDU614	U-614 Disch U	U-614 Tank	0-3/105-3	_	ک	
UDU120	U-128 Disch. Value	<b>U-120</b> Tank	3	S	1.7	
UDU4808	HW Sto. Tk. U-4000 Disch. Ualve	U-4000 Tank	K-9		7	
HAZ. WASTE FI	FUELS BLEND TANK DIKE:					
Dike Area	HW Fuels Blend Dike - Background	£	£	210	100	
UDU6000	Fuels Sto. Tk. V-6000 Disch. Value	U-6888 Tank	カアメ	617	2	
UDU119M	U-11@Wisch. Ualue	U-110MTank	レルン	۵/۷		
UDU210H	نه	U-210M Tank	9	0/>	7	
UDU175	sch. Valve	U-175 Tank	druft - =/	C10	·	
UTRAMS	HW Fuels Transfer Line Value	Fuels Dike	<b>=/7</b>	015	Σ	
ĺ	- 1			,		
BATCH DIST.	REBOILER AREA:					
ler	Reboiler Area - Background	£	ыN	50		
USMPR	Sample Value - Reboiler	Batch Still	13111185-0	5	0/1	
URETR	- Reboiler	Batch Still	A CO	50	1.0	
UFILLR	Je - Reboiler	Batch Still	2 2	20	ſ	
Z.	Man Hole Cover - Reboller	Batch Still	0,0	5.0	19	
<b><i>\AIRPERM\LEAKCHK</i></b>	KCHK Rev. 1/11/91					
					1	

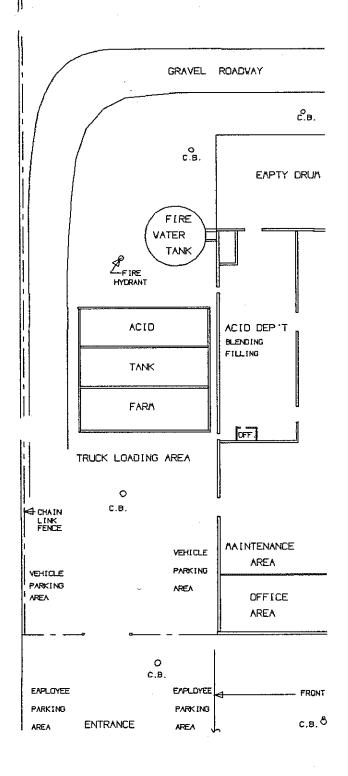
Components to be checked are pump seals, values, open-ended pipes, relief values, sample values. Exhibit D-15 cont.

				TEST	UISIBLE	
			PROCESS	UALUE	LEAK	
COMPONENT	LOCATION	EQUIPMENT	STREAM	(bbm)	(Y/N)	COMMENTS
						40 Ch
DRUM PROCESSING AREA:	INC AREA:					
Area	Drum Proc. Area - Background	£	¥	) )		
UFU110M1	Value on Trans. Line to U-118M	HW Fuels Line	OF	150	NO	WE MATTERIA
UFU116M2	Value on Trans. Line to U-110M	HW Fuels Line	2	90	2	en outsun
UFU119H3	Value on Trans. Line to U-110M	HW Fuels Line	٦	25-57	2	0.1- 1/191112
UFU110MA	Ualue on Trans. Line to U-110M	HW Fuels Line	۲,	D5-54	ረ	
USU118M	Value on Trans. Line to U-110M	HW Fuels Line	٦٦	09	ک	
UFU110M5	Value on Trans. Line to U-110M	HW Fuels Line	7	001	5	NAS JUNO
PUMP ROOM:						
Area	Pump Room - Background	# <b>X</b>	¥	80.		
UFLUWAS	Ualue to Feed Either Luwa	Pump Room	イング	03	0/1	
VFBSTILL	Ualue to Feed Batch Still	Римр Коом	イメング	60	, , ,	
				,		
				•		
			-			
<b><i>\AIRPERM\LEAKCHK</i></b>	KCHK Rev. 1/11/91					

Components to be checked are pump seals, valves, open-ended pipes, relief valves, sample valves.

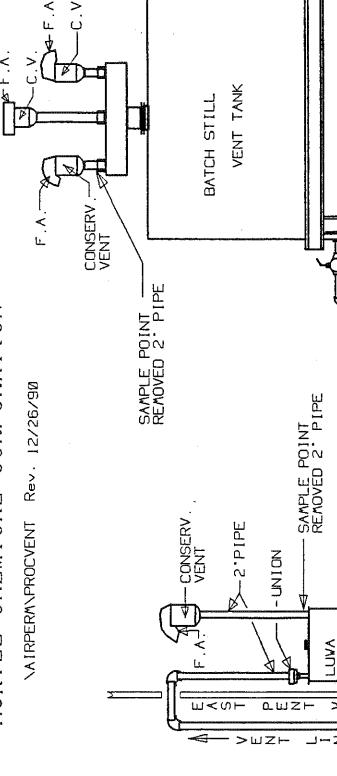
Exhibit D-15 cont.

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# HUKILL CHEMICAL CORPORATION



BATCH STILL, VENT

LUWAS: VENT

ROOF DECK

ROOF

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COND. LINE -

VENT

LOCATIONS FOR COMPLIANCE WITH ORGANIC AIR EMISSION REGS TEST

Figure D-13

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### APPENDIX A

INSPECTION LOG SHEETS

## INSPECTION LOG SHEET - A Operating, Structural Equip & Tank Storage Area

Key: Status
present
X - not present

DATE:		MILITARY	TIME:	Con	dition
INSPECTED	BY:		·		operable in need of maint.
COMMENTS	:		·	X ~~	operable un-operable

### -See back for details-

ITEM	STATUS	CONDITION	OBSERVATIONS	CORRECTIVE ACTION TAKEN	CORRECTIVE ACTION DATE SIGNED
Sumps	•				
Pump					
Ramp					
Dike		-			
Foundation		-			
Holding Tanks					
Piping				•	
Supports					•
Spent Acid Tank Sump	-!				
Pump	•				
Dike				•	
Foundation		-		•	
Tank					•
Piping			•		
Supports	,	•			
Spray Booth					
		•			
,					

				•
•				
			•	

Area/Equipment	Items Inspected	Conditions
Operating and Structural equipment	Sump areas	Erosion, uneven settlement, cracks and spalling in concrete, wet spots
	Pump Ramps	Power, clogging Erosion, uneven settlement, cracks and spalling in concrete
•	Dikes	Cracks, deterioration
	Bases or foundation	Erosion; uneven settlement; cracks and spalling in concrete pads, base rings and piers; deterioration of water seal between tank bottom and foundation, wet spots.
	•	I .
Area/Equipment	Items Inspected	Conditions
Tank Storage Area	Holding tanks	Corrosion, discoloration, cracks, buckles, and bulges
	Piping to holding tanks	Loss of metal thickness, leaks, corrosion or deterioration
	Tank structural supports	Concrete deterioration and corrosion of pipe supports
	Paint Spray Booth	Sprinkler Head, filter condition, air flow
And the second s	- · · · · · · · · · · · · · · · · · · ·	
·		
	. [	

# INSPECTION LOG SHEET - B Key: Status Operating, Structural Equip & Tank Storage Area X - not present

DATE:	MILITARY TIME:		<u>ition</u>
INSPECTED	BY:	•	operable in need of maint.
COMMENTS		x -	operable un-operable

### -See back for details-

CTEM	STATUS	CONDITION	OBSERVATIONS	CORRECTIVE ACTION TAKEN	CORRECTIVE ACTION DATE SIGNED
Base					
Sump					
Dike					
Pumps					
Debris	<u> </u>				
Pallets					
Waste Segregation ?					
Containers:					
Stacking		,			
Sealing				· · · · · · · · · · · · · · · · · · ·	
Labeling					
Condition .					
Ramps					
Warning Signs					
					والمساور
Shar Mixer					
Catwalk					·
Hydraulic Systems					
Raw Materials					
Leaks					
Smills					

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Ar	ea/	Eq	ui	pme	nt

### Items Inspected

### Conditions

Container Storage Area

200

Container placement and stacking

Sealing of containers

Labeling of containers

Containers

Ramps

Warning signs

Base or foundation

Sump area

Dikes

Pumps (automatic)

Debris and refuse

Pallets

Segregation of incompatible wastes

Shar Mixer

Hydraulic System

Raw Materials

Leaks

Spills

Aisle space, height of stack

Open lids

Improper identification, dat missing -

Corrosion, leakage, structur defects

Cracks, spalling, uneven settlement, erosion

Damaged

Cracks, spalling, uneven settlement, erosion, wet spots .

Cracks, spalling, uneven settlement, erosion, wet spots

Cracks, deterioration

Setting adjustment, power, clogging, leakage

Clog sump pump, aesthetics, possible reaction with leaks

Damaged (e.g., broken wood, warping, nails missing)

Storage of incompatible wastes in area

hydraulic system, is in operation condition Is in operating condition.

Stacked Properly/No spilled material

No leaking of Hazardous Wast

No spills of Hazardous Waste: Containers are covered and in good condition

APPENDIX A, INSPECTION LOG SHEET B, PAGE 2

Containers

# HUKILL CHEMICAL CORPORATION INSPECTION SCHEDULE

area / equipment	ITEM INSPECTED	CONDITION	FREQUENCY
Operating and Structural Equipment	Sump Areas	Erosion, uneven settlement, cracks spalling in concrete, wet spots	Weekly
	Pump Ramps	Power, clogging, leaking, excessive noise, frayed electrical cord Erosion, uneven settlement, cracks	Weekly Weekly
	Dikes Bases or foundations	spalling in concrete Deterioration, cracks Erosion, uneven settlement, cracks and spalling in concrete pads, base rings and piers, deterioration of water	Daily r
		seal between tank bottom and foundation wet spots	a
Tank Storage Areas	Holding tanks		
	Piping	Duckles, Duiges, Small leaking Loss of Metal thickness, leaks, corrosion or deterioration, bends	Daliy
	Valves and fittings		Dally
	Tank Structural Supports	tabs are on quick connect caps Concrete deteriora, cracking corrosion of pipe supports	Daily Daily
Container Storage Areas	1	Cracks, spalling, uneven settlement erosion, wet spots	Weekly
	bump area Dikes Debris and refuse	cracks, spairing, uneven sectionent erosion, wet spots Cracks, deterioration Clogged catch basin grating,	Weekly Weekly
	Pallets	aesthetics, possible reaction with leaks Daily Damaged (broken wood, warping or nails missing	ks Daily Weekly

		7	

# Exhibit F-2

# HUKILL CHEMICAL CORPORATION INSPECTION SCHEDULE

AREA / EQUIPMENT	ITEM INSPECTED	CONDITION	FREQUENCY
Container Storage Area Continued	Segregation of incompatible wastes Container placement Sealing of containers Labeling of containers Containers	Storage of incompatible wastes in area Aisle space, stack height Open lids, leaks Improper identification, date missing Corrosion, leakage	Weekly Weekly Weekly Weekly
	Ramps Warning Signs	structural derects Cracks, spalling, uneven settlement,erosion Damaged, illegible	Weekly Weekly
Tanker Load/Unload Area	Dock surface Hoses Tools Pumps Absorbent	Spills not cleaned Area clear of hoses Area clear of tools Not leaking, electric cords Sufficient amount located nearby for spill containment	Daily Daily Daily Daily
Security Devices	Fence Gates Night Lights Alarm	Intact Won't open and close Burned out Check circuit test	Weekly Daily Daily Daily
Monitoring	Tank Level Gauges High level alarm Water table level	Dirty, not floating, freeze Check sensitivity, annunciator, alarm. Flooding	Daily Daily Daily

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P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149

(614) 644-3020

FAX (614) 644-2329

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BEGENED NOV 21 1991

George V. Voinovich Governor

OFFICE OF RCRA.
Waste Management Division
U.S. EPA, REGION V.

### CERTIFIED MAIL

November 19, 1991

FACILITY: Hukill Chemical NOTICE OF DEFICIENCY TA2 OHIO ID: 02-18-0315

USEPA ID: OHD001926740

Robert Hukill Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146

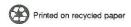
Dear Mr. Hukill:

Thank you for your June 18, 1991 response to Ohio EPA's Notice of Deficiency dated March 11, 1991.

The Ohio EPA Division of Hazardous Waste Management has conducted a technical adequacy review of your Part B application and has determined it to be technically inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

We have enclosed technical adequacy comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to Ohio EPA within 45 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

- Old language is overstruck.
- 2. New language is capitalized.
- 3. Page headers should indicate date of submission.
- 4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.



053-63

Mr. Robert Hukill Page 2

Please send one copy each to:

Tom Crepeau
Ohio EPA, DHWM
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

Lisa Pierard RCRA Activities Part B Application U.S. EPA - Region V 5HR-13 230 South Dearborn Street Chicago, Illinois 60604

Please send two copies to:

Kristin Switzer Ohio EPA, Northeast District Office 2110 East Aurora Road Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy.

Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, 2) denial of the permit application, 3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

We request that the facility contact Kristin Switzer, NEDO, at (216) 425-9171 within 10 days of receipt of this NOD to discuss each of the enclosed comments in order to make clear the information being requested. This can be accomplished by a conference call or meeting. Thereafter, any questions concerning the review of this permit application and the level of detail expected, should also be addressed to the above mentioned person.

Sincerely,

Edwin Y. Lim, Manager

RCRA Engineering Section

Division of Hazardous Waste Management

CC: Lisa Pierard, U.S. EPA
Joel Morbito, U.S. EPA
Tehmton Toorkey, CO, DHWM, Ohio EPA
Frank Basting, CO, DHWM, Ohio EPA
Pam Allen, CO, DHWM, Ohio EPA
Rhonda Rothschild, CO, DHWM, Ohio EPA
Kristin Switzer, NEDO, DHWM, Ohio EPA
Central File

# PART B REVIEW COMMENTS Hukill Chemical Corporation OHD 001 926 740 02-18-0315

### TECHNICAL ADEQUACY COMMENTS

### GENERAL COMMENTS

- 1. The general organization of the permit application is confusing. Plan sheets, exhibits, drawings, and like information are often not referenced and are not readily accessible. All information included in the permit application must be referenced in the appropriate text of the application by section number and page number. Also, the permit application must be structured according to the enclosed checklist for better organization of required information.
- 2. The hazardous waste fuels blending tanks are considered by the Ohio EPA to be regulated units which must be permitted. Although the blending of hazardous waste fuels is exempt from being considered a permitted activity, the tanks must be permitted since they are used for storage of off-site hazardous wastes. The permit application must be revised in all applicable sections to meet the requirements for permitting of hazardous waste fuels blending tanks. The Part A and Part B permit applications must include all existing and proposed hazardous waste fuels blending tanks as storage units.

### A PART A APPLICATION

- 3. The Part A application must include a scale drawing of all past treatment, storage, and disposal areas as required by OAC 3745-50-43(A)(4). Plan Sheet 1A and Plan Sheet 2 show only future and present treatment, storage, and disposal areas located at the facility.
- 4. The Part A application must be modified to include detailed photographs of all existing treatment, storage, and disposal areas located at the facility as required by CAC 3745-50-43(A)(5). The copies of photographs submitted do not schearly show all existing treatment, storage, and disposal areas. Actual photographs would more clearly show all existing treatment, storage, and disposal areas.

### B FACILITY DESCRIPTION

5. B-2a Topographic Map, General Requirement: OAC 3745-50-44(A)(19);

Plan sheets indicating existing and proposed facility conditions must be provided for the following:

- a. Surrounding land uses; and
- b. The location of all monitoring wells within the facility.

If this information is currently in the permit application, Section B must be revised to indicate the location of the information.

6. B-4 Traffic Information: OAC 3745-50-44(A)(10);

The facility must provide traffic related information demonstrating the adequacy of access roadway surfaces and load- bearing capacity for expected traffic on-site. The facility must provide information regarding borings and analyses which verify that on-site and off-site roadway surfaces are capable of bearing the weights of trucks.

### C WASTE CHARACTERISTICS

7. C-2a Waste Analysis Parameters and Rationale: OAC 3745-54-13(B)(1);

The Part A permit and Part B permit application for the facility indicate that hazardous wastes having the waste codes D001, F001/F002, F003/F005, and F004 may also possess the toxicity characteristic for metal constituents found in OAC 3745-51-24 and 40 CFR 261.24 and that these hazardous wastes and those having the D002 waste code may also possess the characteristic of toxicity for organic constituents as defined in 40 CFR 261.24. However, the waste analysis plan does not indicate how hazardous wastes to be received by the facility will be evaluated to determine if they are also hazardous because of the characteristic of toxicity. In addition, no information is presented to establish that corrosive waste to be received by the facility are not also hazardous based upon the characteristic of temicity for metal constituents. The waste analysis plan shall be revised to include all necessary information to establish that wastes received by the facility are being adequately characterized for the characteristic of toxicity.

### 8. C-2b Test Methods: OAC 3745-54-13(B)(2);

The waste analysis plan shall be modified to include the test methods used to evaluate hazardous wastes to be received by the facility. Specifically, the following information is required:

- The permit application refers to Hukill Chemical Corporation's Laboratory Manual. If possible, the HCC Laboratory Manual or appropriate sections of this document should be included as an appendix/exhibit to Section C.
- b. The text in Section C of the permit application must reference appropriate appendices/exhibits or appropriate explanations for all appendices/exhibits must be provided in the permit application.
- c. The methodology for determination of distillation range cannot be found in the appendix of Section C. The facility must provide this method in the permit application.
- d. Quality assurance/quality control documentation to verify the accuracy of methods must be provided in the permit application (e.g., calibration of instruments, standards, blanks, controls, etc.).
- e. Test methods for analyses of corrosive wastes must specify U.S.EPA publication SW-846, "Test Methods for Evaluating Solid Waste", as well as the specific method number.
- f. Test method 7.3.3. for hydrocyanic acid evolution must be included in the permit application and the document from which this method is obtained must be identified in the permit application.
- g. The methodology for determination of percent solids in corrosive wastes must be provided in the permit application or if methodology is the same as that for solvent wastes, this must be indicated in the permit application.

### 9. C-2c Sampling Methods: OAC 3745-54-13(B)(3);

The permit application must be revised to include a description of the methods which will be used to sample bulk liquid shipments of waste acids in tanker trailers.

C-2e Additional Requirements for Wastes Generated Off-Site: 10. OAC 3745-54-13(C);

The waste analysis plan must be revised to fully describe the protocols which will be used to analyze incoming wastes for the characteristic of toxicity. Specific analytical or documentation requirements for generators of off-site wastes received by the facility must be described.

Waste Characteristics: Solvent Wastes and Dioxin-11. C-3a(1)Containing Wastes: OAC 3745-54-13(A)(1); 3745-59-07(A); 3745-59-30 and 31; Appendix to 3745-59-07;

The waste analysis plan shall be revised to provide a complete description of the methods to be used to verify whether solvent wastes received by the facility are restricted from land disposal. This description shall include the following information:

- Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- For waste streams where generator knowledge is used to b. determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- Sample land disposal restriction notifications submitted c. to the facility and used by the facility for shipments of hazardous wastes off-site; and
- A description of operational control procedures used to d. properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for F solvent wastes.
- C-3a(2) Waste Characteristics: California List Wastes: 12. OAC  $3745-\overline{54-13}$  (A) (1);  $3745-\overline{59-07}$  (A);  $3745-\overline{54-32}$ ;

The waste analysis plan shall be revised to describe methods used to determine if wastes accepted by or generated by the facility are restricted from land disposal based upon California list prohibitions specified in OAC 3745-59-This description shall include the following information:

Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;

- b. For waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. Sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous waste off-site; and
- d. A description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for California list wastes.
- 13. C-3a(3) Waste Characteristics: First Third Wastes with Treatment Standards:
  OAC 3745-59-33(A) through (E); 3745-59-07(A); 3745-59-41 through 43;

The waste analysis plan shall be revised to describe methods used to determine if first third wastes accepted by or generated by the facility are restricted from land disposal. This description shall include the following information:

- a. Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- b. For waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. Sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off-site; and
- d. A description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for first third wastes.

14. C-3a(4) Waste Characteristics: Second Third Wastes with Treatment Standards: OAC 3745-3745-59-34(A) through (G); 3745-59-41 through 43; 40 CFR 268.34(a) through (g); 268.41 through 43;

The waste analysis plan shall be revised to describe methods used to determine if second third wastes accepted by or generated by the facility are restricted from land disposal. This description shall include the following information:

- a. Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- b. For waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. Sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off-site; and
- d. A description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for second third wastes.
- 15. C-3a(6) Waste Characteristics: Third Third Wastes with Treatment Standards:
  40 CFR 268.35(a) through (j); 40 CFR 268.41 through 43;

The waste analysis plan shall be revised to describe methods used to determine if third third wastes accepted by or generated by the facility are restricted from land disposal. This description shall include the following information:

- a. Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- b. For waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;

- c. Sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off-site; and
- d. A description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for third third wastes.
- 16. C-3b(1) Retention of Generator Notices and Certifications: OAC 3745-59-07(A);

The waste analysis plan shall be modified to describe record keeping protocols for land disposal restriction notifications received by the facility and provided to off-site facilities. The Part B permit application must specify how long land disposal restriction notifications will be maintained by the facility.

17. C-3b(2) Notification and Certification for Wastes to be Further Managed:

OAC 3745-59-07(B)(6);

The waste analysis plan shall be revised to describe protocols for the notification and certification regarding applicable land disposal restrictions for all hazardous wastes shipped from the facility to off-site facilities for further management. The Part B permit application indicates that sample land disposal restriction notifications can be found in the appendix to Section C. These documents cannot be found in the permit application and must be provided by the facility.

### D PROCESS INFORMATION

18. D-1a(1) Description of Containers: OAC 3745-55-71; 3745-55-72;

The permit application must be revised to include information regarding the approximate number of tote-type containers which will be managed in the solvent and corrosive waste drum storage areas. In addition, a description of the construction materials, dimensions and usable volumes, DOT or other manufacturer specifications, linear specifications (if applicable), container condition (new tred reconditioned), and markings or labels which will be utilized must be provided for the tote-type containers.

19. D-la(3)(a) Requirement for the Base or Liner to Contain Liquids:
OAC 3745-55-75(B)(1);

The permit application must be modified to provide information demonstrating the capability of the container storage areas to contain liquids. This demonstration shall include an engineering evaluation of the base design and construction materials as well as the adequacy of the patching of cracks in the east warehouse storage area. In addition, the application shall also be modified to include a demonstration that the base is compatible with the waste stored in the units or shall provide information regarding proposed treatment or coating of the base in each unit necessary to make it compatible with the wastes to be stored there.

The facility must demonstrate that the patching of cracks in the east warehouse storage area is adequate via an engineering evaluation. It is not clear from exhibits in Section D of the permit application whether the patching of cracks has been evaluated. The facility must demonstrate that container storage areas for solvents and corrosives have bases which are impermeable to hazardous materials stored in these areas. The permit application must also include descriptions of the specific coatings to be used in the container storage area for corrosives. In addition, the permit application must also demonstrate that the spark-proof coating in the container storage areas for solvents is impermeable or that the container storage areas will be coated with a material that renders the base impermeable to solvents.

20. D-2a Tank Systems Description: OAC 3745-50-44(C)(2); 3745-55-94(A);

Provide a description of the material of construction of each proposed tank. Table D-1 indicates proposed tanks will be constructed of "CS" and "S/S". It is assumed that "CS" and "S/S" refer to carbon steel and stainless steel, respectively. The facility must provide interpretation of "CS" and "S/S" in Table D-1.

21. D-2a(1) <u>Dimensions and Capacity</u>: OAC 3745-50-44(C)(2)(b);

Provide the dimensions and capacity of each tank. Serion B-a describes six (6) 14,500 gallon tanks and one (1) 10,000 gallon tank for storage of spent solvent and off-specification organic chemical wastes. Section D, p. 18, describes six (6) 14,000 gallon tanks and one (1) 21,000 gallon tank in the same area. The facility must clarify the

volumes of these tanks. Figure F-11 indicates seven (7) 14,000 gallon tanks. The permit application must be modified to include tank V-120 rather than V-714. All figures in the permit application do not indicate that tank V-714 has been replaced by tank V-120.

22. D-2a(2) Description of Feed Systems, Safety Cutoff, Bypass Systems and Pressure Controls:
OAC 3745-50-44(C)(2)(c); 3745-55-94(B);

The permit application must be revised to describe measures used to provide for waste feed cutoff and/or bypass of the waste acid tank in emergency situations. Protocols, equipment, and structures used to prevent spills from the tank system and transfer equipment must also be described in the permit application.

23. D-2a(3) Diagram of Piping, Instrumentation, and Process-Flow:

OAC 3745-50-44(C)(2)(d);

Detailed diagrams of piping and instrumentation must be provided for the existing waste acid tank. These diagrams shall include all piping and appurtenant equipment such as hose connection, pumps, etc., and shall indicate the entire network of piping from loading areas to waste unloading areas or connections to process equipment. Instrumentation diagrams shall indicate the type and location of all instrumentation as well as any operator monitoring locations in the facility (i.e., the location of the placement of alarms monitored by the operators).

24. D-2b(1) Assessment of Existing Tank System Integrity: OAC 3745-50-44(C)(2)(a); 3745-55-91;

The permit application shall be revised to include an assessment of the structural integrity and suitability of the existing waste acid tank for handling hazardous waste which has been reviewed by an independent, qualified, registered professional engineer which meets the requirements found in OAC 3745-55-91. For purposes of compliance with this requirement, Hukill Chemical Corporation may incorporate the applicable portions of the existing tank assessment submitted to Ohio EPA in May 1989 into the permit application. Ohio EPA is aware that this tank is currently not in service. The assessment is required in order to demonstrate that the existing waste acid tank is a miable structure which can in the future be managed as described in the permit application.

25. D-2d(1) Plans and Description of the Design, Construction, and Operation of the Secondary Containment System:

OAC 3745-50-44(C)(2)(g); 3745-55-93(A) through (F);

A detailed as-constructed Plan Sheet for the secondary containment dike for tanks V-114, V-214, V-314, V-414, V-514, V- 614, and V-120 shall be included in the permit application to document compliance with requirements for secondary containment for tank systems at the facility.

26. D-2d(1)(c) Requirements for an External Liner, Vault, Double- Walled Tank or Equivalent Device:

OAC 3745-50-44(C)(2)(g); 3745-55-93(D) and (E);

Table D-2 in Section D indicates that the secondary containment for the existing feed and bottoms storage area cannot contain 100 percent of the capacity of the largest tank. The secondary containment must be upgraded to comply with OAC 3745-50-44(C)(2)(g) and 3745-55-93(D) and (E).

The facility must provide the following information for the secondary containment system for the upgraded feed and bottoms tank storage area:

- a. Present calculations to show that the secondary containment system is designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
- b. Show that the secondary containment system is designed or operated to prevent run-on or infiltration of precipitation. Alternatively, show that the collection system has sufficient excess capacity to contain run-on and precipitation from a 25-year, 24-hour rainfall;
- c. Show that the secondary containment system is free of cracks or gaps; and
- d. Demonstrate that the system is designed and installed to surround the tank completely and to cover all surrounding soil likely to come in contact with the wastes if they were released from the tanks.
- 27. D-2d(2) Requirements for Tank Systems Until Secondary
  Containment is Implemented:
  OAC 3745-55-93(I);

The permit application must be revised to indicate that the existing spent acid tank and its ancillary equipment will be tested annually for leaks and/or assessed as required by OAC 3745-55-93(I)(2) and (3) until secondary containment is provided. Specific test methods to be utilized to meet this requirement must be presented.

### F PROCEDURES TO PREVENT HAZARDS

28. F-2b(1) Container Inspection: OAC 3745-55-74;

> The application must be revised to include container storage area inspection forms. The application must contain the forms that are to be completed by personnel during an inspection.

29. F-2b(2)Tank System Inspection: OAC 3745-55-95;

> The application must be revised to include tank system inspection forms. The application must contain the forms that are to be completed by personnel during an inspection.

30. F-3a(3) Emergency Equipment: OAC  $3745 - \overline{54} - 32(C)$ ;

Figure G-2 must be revised to show locations of:

- Proposed additional emergency equipment for the proposed new hazardous waste management units at the facility.
- b. Two fire fighting foam carts and two 80 pound BC powder fire extinguisher carts.
- 31. F-4a Unloading Operations: OAC  $37\overline{45-50-44(A)(8)(a)}$ ;

Figure F-6 indicates that there are two valves on each unloading pipe for tanks in the existing tank farm. revised text on page 10 of Section F explains that the valve at the tank is normally kept open. The other valves are used for flow control. The application must be revised to indicate that flow control valves shall be kept closed when the tanks are not being unloaded.

### G CONTINGENCY PLAN

32. G-4c Assessment: OAC 3745-54-56(C) and (D);

> The contingency plan shall be revised to provide specific guidelines to be used by the emergency coordinator to assess emergency situations at the facility. These guidelines shall include criteria for notification of local emergency service authorities and the Ohio EPA Emergency Pesponse Section. addition, criteria to be considered for determining the need for evacuation of the facility or surrounding areas shall be described.

33. G-4e Prevention of Reoccurrence or Spread of Fires, Explosions, or Releases:

OAC 3745-54-56(E);

The specific procedures which will be employed at the facility to prevent the spread of fires and explosions to other areas of the facility shall be described in the contingency plan. Aside from moving containers to other areas of the facility, are any other procedures followed to prevent the spread of fires and explosions to other areas of the facility? Can unaffected areas of the facility be isolated via doors or some other device which may impede the spread of fires and/or explosions?

34. G-4f Storage and Treatment of Released Materials: OAC 3745-54-56(G);

Specific procedures to be utilized to recover released materials at the facility must be described in the contingency plan. By what method will contaminated soil or residue be collected for placement in storage containers? Also, a more thorough discussion of the methods to be used to evaluate released materials for disposal following recovery must be provided.

35. G-4j(5) Provision of Secondary Containment, Repair, or Closure:
OAC 3745-55-96(E);

The permit application must define what constitutes a "major" repair as discussed on page 10 of Section G.

- I CLOSURE PLANS, POST-CLOSURE PLANS, AND FINANCIAL REQUIREMENTS
- 36. I-la Closure Performance Standard: OAC 3745-55-11;

The closure plan does not thoroughly describe how closure will meet the closure performance standard. Sections of the EA closure plan which are referenced in the permit application closure plan must be incorporated into the permit application. Also, all proposed hazardous waste management units and the hazardous waste fuels blending units must be included in the closure plan in the permit application.

### 37. I-1c <u>Maximum Waste Inventory</u>: OAC 3745-55-12(B)(3);

The maximum waste inventory describes the maximum inventory of wastes that could be in storage, treatment, and disposal at any time during the active life of the facility. The maximum waste inventory should not encompass contaminated materials generated during closure activities. The closure plan must be revised to describe the maximum inventory of wastes that could be in storage, treatment, and disposal at any time during the active life of the facility. The maximum inventory of wastes must include wastes in storage, treatment, and disposal in existing and proposed hazardous waste management units and in existing and proposed hazardous waste fuels blending units.

### 38. I-1d Schedule for Closure: OAC 3745-55-12(B)(6);

The schedule for closure of the facility shall be revised in accordance with revisions made to the facility closure plan as the result of the comments provided herein.

### 39. I-le(1) <u>Inventory Removal</u>: OAC 3745-55-12(B)(3);

The closure plan must be revised to include proposed hazardous waste management units and fuel blending units in discussions of inventory removal. The revision must include a discussion of the methods which will be used to remove, transport, treat, store, or dispose of these wastes at the facility at the time of closure and identify the types of off- site hazardous waste management units to be used for treatment or disposal of hazardous wastes from the facility.

The closure plan must describe on-site processing of recyclable wastes from existing and proposed hazardous waste management units and hazardous waste fuels blending units, and provide estimated maximum quantities of wastes considered to be recyclable on-site.

40. I-le(2) <u>Disposal or Decontamination of Equipment,</u>
Structures, and Soils:
OAC 3745-55-12(B)(4); 3745-55-14;

The closure plan must be revised to provide a detailed description of the steps needed to decontaminate or dispose of all equipment associated with the existing and proposed hazardous waste management units at the facility. This description shall include the following information:

a. A complete description of all existing, proposed, and fuels blending hazardous waste management units at the facility to be closed as identified in the Part A

application, including: a list of associated equipment; detailed drawings of the units to be closed and all ancillary equipment; a description of the period of use, identification of the hazardous wastes managed in the unit (by EPA identification number and chemical name); pertinent physical data and construction details; and a description of underlying soils and site geology. Text and drawings in other sections of the permit application can be referred to in the description;

- b. Decontamination procedures for structures and equipment (proposed and fuels blending tanks);
- c. Criteria for determining whether structures, equipment, or underlying soils are contaminated (existing, proposed, and fuels blending). The closure plan must describe methods for sampling and analyzing containment structures and underlying soils for contaminants;
- d. Management practices for wastes generated during closure (existing, proposed, and fuels blending). The closure plan must describe methods for management (including collection and storage) of rinseates, structures, and soils which may be generated during closure activities;
- e. Methods and criteria for the verification of the effectiveness of closure activities (existing, proposed, and fuels blending). The closure plan must specify the degree and extent of contamination which would result in a decision to close the facility as a landfill; and
- f. Quality assurance/quality control procedures for the implementation of closure, including sample collection and analyses (proposed and fuels blending).
- 41. I-le(3) Closure of Disposal Units/Contingent Closures: OAC 3745-55-78; 3745-55-97(B); 3745-55-12(C); 3745-50-44(A)(13);

The closure plan shall be revised to describe how the facility shall implement closure and post-closure care should information gathered during closure activities indicate that it will be necessary to close any of the hazardous waste management units as a landfill. In addition, the closure plan should also provide for the contingency of the use of health-based risk assessments for the demonstration of clean closure. The permit application must include the specific sections of the EA closure plan which address requirements discussed herein. If necessary, this information must be revised to incorporate all existing and proposed hazardous waste management units and hazardous waste fuels blending units.

I-le(4) Closure of Containers: 42. OAC 3745-55-78, 3745-55-12(B)(3);

> For all proposed container storage units, show that at closure all hazardous waste and hazardous waste residues will be removed from the containment system, and how remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be decontaminated or removed. The description shall address the following:

- Hazardous waste removal and disposal; a.
- Container decontamination and disposal; b.
- Site decontamination and disposal including linings, c. soil, and rinseates; and
- Verification of decontamination. đ.

In addition, the closure plan for existing and proposed container storage units must describe methods for sampling containment structures and soils, and management protocols for wastes generated during closure, including waste collection and storage procedures.

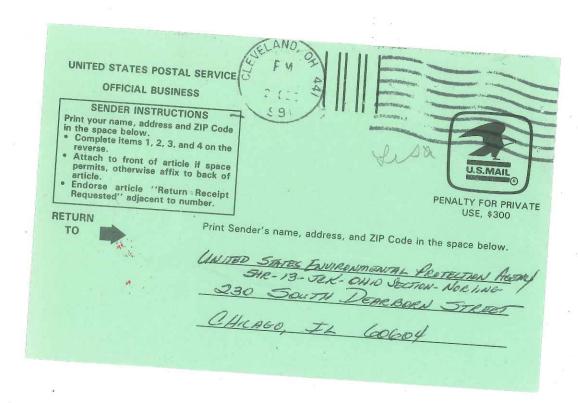
I-1e(5) Closure of Tanks: 43. OAC 3745-55-97; 3745-55-12(B)(3);

> For all proposed tank storage units and hazardous waste fuels blending tanks, describe how all hazardous waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste will be removed or decontaminated at closure and managed as hazardous waste. The description shall address the following:

- Waste removal from tanks and equipment;
- Decontamination of all components;
- Verification of decontamination; and
- Disposal of wastes and residues.

In addition, the closure plan for emisting and proposed tank storage units and hazardous masts from blanding touto must describe methods for sampling containment structures and soils, and management protocols for wastes generated during closure, including collection and storage procedures.

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1 and 2 when additional se	ervices are desired, and complete items				
SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and from being returned to you. The return receipt fee will provide you the name of the person delivered to and from being returned to you. The return receipt fee will provide you the name of the person delivered to and from being returned to you and the person delivered to and addresse are available. Consult postmaster for fees the following services are available. Consult postmaster for fees and check box(es) for additional services (s) requested.  1. Show to whom delivered, date, and addressee's address. (Extra charge)					
	4. Article Number				
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ROBERT L. HUKILL	Type of Service:				
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7013 KRICK ROAD	Certified COD Return Receipt for Merchandise				
BEDFORD, OHIO 44146	Always obtain signature of addressee or agent and DATE DELIVERED.				
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6. Signature - Agent					
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PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-81	15				

### CERTIFIED MAIL: P664 395 532 RETURN RECEIPT REQUESTED

5HR-13

Robert L. Hukill Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146

RE: Request for Subpart AA and BB

Information

Hukill Chemical Corporation

OHD 001 926 740

Dear Mr. Hukill:

On June 21, 1990, the United States Environmental Protection Agency (U.S. EPA) promulgated a rule in 55 Federal Register 25454, limiting organic air emissions as a class at hazardous waste treatment, storage, and disposal facilities requiring a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The effective date for this rule was December 21, 1990.

The U.S. EPA is formally requesting that Hukill Chemical Corporation, submit information required by 40 CFR Parts 270.14, 270.24 and 270.25 that will show compliance with the air emissions rules, Subparts AA and BB.

Enclosed is a checklist of Subparts AA and BB information requirements that you may use as a guideline in preparing your submittal. The Subparts AA and BB information requirements must be submitted to the following address within thirty (30) days of receipt of this letter.

RCRA Permitting Branch (5HR-13) U.S. Environmental Protection Agency 230 S. Dearborn Chicago, Illinois 60604

Attn: Francine P. Norling

Please be advised that the December 21, 1990, date is applicable to the requirements to develop and implement a monitoring plan for equipment leaks, to identify any process vents included in the process vent rules, to develop emission calculations for those affected vents, and the identification of control technology, if required. These records may be submitted in

partial/complete fulfillment of the 40 CFR Parts 270.24 and 270.25 requirements.

Information you submit can be disclosed to the public, according to the Freedom of Information Act and U.S. EPA Freedom of Information regulations. If you wish, however, you may assert a claim of business confidentiality by printing the word "Confidential" on each page of the application which you believe contains confidential business information. U.S. EPA will review business confidentiality claims under regulations in 40 CFR Part 2, and will later request substantiation of any claims. Please review these rules carefully before making a claim.

We will coordinate review of this information with your Part B application that is currently under review by the Ohio Environmental Protection Agency. If your submittal is acceptable, we will strive for a simultaneous issuance of Federal and State hazardous waste facility permits. If, during the processing of your application, the State hazardous waste program becomes authorized to issue RCRA permits for the air emission rules, direct Federal processing will cease, and the State in lieu of U.S. EPA will make the final determination on your application. In either case, please be aware that all State and local requirements still apply.

We are committed to conducting the RCRA permitting process as efficiently as possible. Consequently, I suggest you contact Francine P. Norling, of my staff, at (312) 886-6198, if you have questions concerning your submittal. We look forward to receiving this information.

Sincerely.

Karl E. Bremer, Chief RCRA Permitting Branch

Enclosure

cc: Kris Switzer, OEPA-NEDO Ed Lim, OEPA-CO

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#### HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400 • FAX 216 / 232-9477

Over Forty Years of Quality Products and Services

June 13, 1991

Ms Lisa Pierard RCRA Activities Part B Application U.S. EPA - Region V 5HR-13 230 South Dearborn Street Chicago, Illinios 60604



Dear Ms Pierard:

I have enclosed the requested information in response to the Technical Adequacy Comments for Hukill Chemical Corporation's Part B Application re Mr. Ed Lim's memo to Robert L. Hukill, dated March 11, 1991.

In response to the comments, we have revised the text for sections B, C, D, F, G and H. The text for all these sections has been completely reprinted and enclosed as indicated by the dividers.

Four new or revised Plan Sheets on D size drawings, numbers 1A, 2A, 11C and 12, are inserted in the notebook pockets which will fit the existing Plan Sheet Book.

The new and revised Exhibits, etc., are included with and following the text for each section.

We have provided an "Index of Part B Appendices" which is attached to the front of the enclosure. Those Exhibits, Plan Sheets, Figures and Tables which are new or revised for this revision are marked with an asterisk.

Section I, "Closure Plan and Closure Cost Estimates" has not been revised. We received the "Closure Plan Review Guidance", May 1, 1991 issue, on June 7. It was ordered on May 16. We will review this new guidance document and then revise the Closure Plan section of the Part B Application in response to the Technical Adequacy Comments. I advised Kristen Switzer of this. I do not expect that the later submission of the Closure Section will hold up the Ohio EPA review process.

If there are any questions or comments regarding the enclosed, please contact me at Hukill Chemical, (216) 232-9400.

I met with Paul Anderson and Kristen Switzer at the Northeast District Office on April 1, 1991, to discuss the Technical Adequacy Comments. During this meeting, we addressed the comment number 46(a). I explained that although the fill/discharge lines for the tanks contain two valves, HCC uses the valve nearest the tank as an emergency shut-off valve. We do not feel that it is safe or practical to have the Operator climb into the dike to open or close this valve each time he begins and ends a transfer to the storage tank. Paul suggested that I include this comment on this cover letter.

Sincerely yours,

Il Inc. Edgar M. Price

Engineering Consultant

enclosures:

cc: Robert L. Hukill, President Kristen Switzer, Ohio EPA, NEDO Tom Crepeau, Ohio EPA, DSHWM Nick Andrianas, Eder Associates



P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149 (614) 644-3020 FAX (614) 644-2329 Francisa

George V. Voinovich Governor

May 24, 1991

RE: Amendement to NOD Extension US ID: OHD 001 926 740 OHIO ID: OHIO 02-18-0315

Edgar M. Price Engineering Consultant Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146-4493

Dear Mr. Price:

In a letter dated May 20, 1991, Hukill Chemical was given an extension for submitting a response to an Ohio EPA Notice of Deficiency dated March 11, 1991. The new due date was set at June 3, 1991.

WE CE

On May 24, 1991, you stated via telephone that, although you did not state the number of days required in your May 10, 1991 extension request, at least 30 days extension would be necessary. The Ohio EPA agrees that the June 3, 1991 due date is considerably less than the 30 days extension you intended. Therefore, the Ohio EPA respectfully requests Hukill Chemical Corporation's cooperation in addressing the deficiencies of the Part B application by June 13, 1991.

Please be advised that failure to submit a complete permit application or to correct deficiencies in the application may result in (1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, (2) denial of the application for permit renewal, (3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action, or (4) your application for a renewal permit may be returned as incomplete.

When responding to the Part B deficiencies, if you have any questions regarding the permit application, please feel free to contact Kristin Switzer, Ohio EPA, NEDO at (216) 425-9171.

Sincerely,

Edwin Y. Lim, Manager

RCRA Engineering Section

Division of Solid and Hazardous Waste Management

cc: Lisa Pierard, U.S. EPA

Tehmton Toorkey, CO, DSHWM, OEPA

Frank Basting, CO, DSHWM, OEPA

Printed on recycled paper Kristin Switzer, NEDO, DSHWM, OEPA

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O. Box 1049, 1800 WaterMark Dr. Jolumbus, Ohio 43266-0149 (614) 644-3020 FAX (614) 644-2329



Francina

George V. Voinovich Governor

May 20, 1991

RE: Hukill Extension to NOD

US ID: OHD001926740 OHIO ID: 02-18-0315

Edgar M. Price Engineering Consultant Hukill Chemical Corp. 7013 Krick Road Bedford, Ohio 44146-4493

Dear Mr. Price:

On March 11, 1991 Hukill Chemical Corp. was sent a Notice of Deficiency (NOD) by the Ohio Environmental Protection Agency (Ohio EPA), following a technical adequacy review of the Part B application. In a letter dated May 10, 1991, you requested an extension for submitting a response to the NOD comments. The Ohio EPA, through the normal course of the permitting process, allows 55 days for a facility to respond to a NOD.

As you may know, the permitting process requires a timely interaction between the Ohio EPA and any facility seeking a permit. Any delay in the NOD response will only impede the progress of the permitting procedure. The Ohio EPA realizes that certain unforeseen events may develop during the permit application process and the agency will usually not object to a reasonable extension of the due date. The Ohio EPA respectfully requests Hukill Chemical Corporation's cooperation in addressing the deficiencies of the Part B application by June 3, 1991 so that the Agency may continue the permitting procedure and remain within agency time commitments.

Please be advised that failure to submit a complete permit application or to correct deficiencies in the application may result in (1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, (2) denial of the application for permit renewal, (3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action, or (4) your application for a renewal permit may be returned as incomplete.

053-58

When responding to the Part B deficiencies, if you have any questions regarding the permit application, please feel free to contact Kristin Switzer, NEDO at (216) 425-9171.

Sincerely,

Edwin Y. Lim, Manager

RCRA Engineering Section

Division of Solid and Hazardous Waste Management

cc: Lisa Pierard, U.S. EPA

Themton Toorkey, CO, DSHWM

Frank J. Basting, CO, DSHWM, OEPA Kristin Switzer, NEDO, DSHWM, OEPA



P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149 (614) 644-3020 FAX (614) 644-2329



OFFICE OF RCRA
Waste Management Division

George V. Voinovich Governor

U.S. EPA, REGION V

CERTIFIED MAIL

March 11, 1991

RE: Hukill Chemical Corp.

OHIO ID: 02-18-0315

USEPA ID: OHD 001 926 740

Robert L. Hukill Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146

Dear Mr. Hukill:

Thank you for submitting Part B of the Resource Conservation and Recovery Act (RCRA) permit application for your facility pursuant to both the State and Federal Part B call-in.

As you may know, Ohio has been delegated authority to operate its hazardous waste management program in lieu of the Federal hazardous waste program. Ohio now has the responsibility for issuing RCRA permits for hazardous waste treatment, storage and disposal facilities subject to the authority retained by U.S. EPA under the Hazardous and Solid Waste Amendments of 1984 (HSWA) to Since the requirements and prohibitions imposed by HSWA are effective immediately regardless of a State's authorization status, U.S. EPA will continue to implement the applicable HSWA requirements. In other words, under HSWA there will continue to be a dual State-Federal regulatory program in Ohio. To the extent Ohio's authorized program is unaffected by HSWA, the Ohio program will operate in lieu of the Federal program. To the extent HSWA-related requirements are in effect, U.S. EPA will continue to administer and enforce those portions of HSWA in Ohio (which may include the issuance of full or partial permits) until Ohio receives authorization to do so. And until that time, Ohio will continue to assist U.S. EPA's implementation of the HSWA requirements under a cooperative agreement.

The Ohio EPA Division of Solid and Hazardous Waste Management has conducted a technical adequacy review of your Part B application and has determined it to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Mr. Robert Hukill Page Two

We have enclosed technical adequacy comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

- Old language is overstruck.
- New language is capitalized.
- 3. Page headers should indicate date of submission.
- 4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Please send one copy each to:

Tom Crepeau Ohio EPA, DSHWM 1800 WaterMark Drive P.O. Box 1049 Columbus, Ohio 43266-0149

Lisa Pierard RCRA Activities Part B Application U.S. EPA - Region V 5HR-13 230 South Dearborn Street Chicago, Illinois 60604

Please send two copies to:

Kristin Switzer Ohio EPA, Northeast District Office 2110 East Aurora Road Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information from you if it is necessary to clarify, modify or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy.

Mr. Robert Hukill Page Three

Failure to submit a complete permit application or to correct deficiencies in the application may result in the following: 1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, 2) denial of the application for a renewal permit, 3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

If you have any questions concerning the review of the permit application, or the level of detail we expect, please do not hesitate to contact Kristin Switzer, NEDO, at (216) 425-9171. We also request that the facility contact the above referenced person, and discuss each of the enclosed comments in order to make clear the information being requested. This can be accomplished by a conference call or meeting.

Finally, as you may know, Ohio's hazardous waste law was recently amended to authorize the Attorney General to conduct background investigations on permittees and applicants for permits for hazardous waste treatment, storage and disposal facilities. Ohio Revised Code 3734.42 requires every applicant to file a disclosure statement with both the Ohio EPA and the Attorney General on a form developed by the Attorney General.

Rules 109:6-1-01 to 109:6-1-04 were promulgated by the Attorney General to implement the background investigations program. These rules, effective March 3, 1989, provide that if you file a permit application on or after 180 days after the effective date of the rules, i.e. after September 3, 1989, then your application for a permit must be accompanied by the required disclosure statement.

Since you have filed a permit application before September 3, 1989, then your disclosure statement shall be filed with the Attorney General on or before the date specified in a written notice to be sent by the Attorney General in accordance with Ohio Revised Code 3734.42.

For information concerning Rules 109:6-1-01 to 109:6-1-04, the disclosure statements and the Attorney General's procedures for written notice, please contact Mr. Athan Vinolus at the Attorney General's Environmental Enforcement Section, at 30 East Broad Street, Columbus, Ohio 43215, or at (614)466-2766.

Mr. Robert Hukill Page Four

Ohio EPA will continue to process your application without a disclosure statement. The permit application and the findings made in accordance with Ohio Revised Code 3734.05(H)(1) and 3734.44 will form the basis for Ohio EPA's determination on the permit. An investigative report will be developed by the Attorney General and evaluated for the permit. Please be advised that future review of the investigative report and disclosure statement developed for this permit may form the basis for revocation of the permit, where applicable, pursuant to Ohio Revised Code 3734.45.

Sincerely,

Eduin Y. Lim, Manager

RCRA Engineering Section

Division of Solid and Hazardous Waste Management

cc: Lisa Pierard, U.S. EPA

Joel Morbito, U.S. EPA

Tehmton Toorkey, CO, DSHWM, Ohio EPA Frank Basting, CO, DSHWM, Ohio EPA Kristin Switzer, NEDO, DSHWM, Ohio EPA

Central File

# PART B REVIEW COMMENTS HUKILL CHEMICAL CORP. 02-18-0315/OHD 001 926 740 TECHNICAL ADEQUACY COMMENTS

#### 1. A <u>Part A Application</u> [OAC 3745-50-43]

Plan Sheet 2 of the Part A application must be modified to include a scale drawing of all past, present and future treatment, storage and disposal areas located at the facility as required by OAC 3745-50-43 (A) (4). The current diagram only includes areas used at present.

#### 2. A <u>Part A Application</u> [OAC 3745-50-43]

The Part A application must be modified to include detailed photographs of all existing treatment, storage and disposal areas located at the facility as required by OAC 3745-50-43 (A) (5).

#### 3. B-1 <u>General Facility Description</u> [OAC 3745-50-44 (A) (1)]

The general facility description must be revised to include a brief description of the hazardous waste units at the facility which require a permit. This description must include the types of units, types of wastes stored and other pertinent general information.

#### 4. B-2a Topographic Map, General Requirements [OAC 3745-50-44 (A) (19)]

The plan sheets provided indicate topography only for existing conditions and not following the modifications proposed for the facility. For purposes of the permit application, identical plan sheets indicating existing and proposed facility conditions must be provided for the following information required by OAC 3745-50-44 (A)(19):

- a. Surface water flow in the vicinity of and from each operational unit;
- b. Surrounding land uses;
- c. A wind rose;
- d. The location of all monitoring wells within the facility;
- e. The location of all storm, sanitary and process sewers;
- f. Fire control facilities; and
- g. Run-off control systems.

#### 5. B-2a Topographic Map, General Requirements [OAC 3745-50-44 (A) (19)]

Plan Sheet 5 was not included in the permit applicat

#### 6. B-4 <u>Traffic Information</u> [OAC 3745-50-44 (A) (10)]

The traffic information for on-site vehicle traffic is presented only for the current site conditions. This description does not include a description of the types of vehicles and estimated traffic volumes as required. In addition, traffic information must be provided for the anticipated conditions following the proposed changes to the facility. This information must include the following:

- a. Anticipated traffic patterns on-site;
- b. Estimated volumes, including the number and types of vehicles;
- c. Traffic control signs, signals, and procedures;
- d. Adequacy of access roadway surfaces and load-bearing capacity for expected traffic on-site.

#### 7. C-la Containerized Waste Containing No Free Liquids [OAC 3745-50-44 (C) (1) (b)]

The facility waste analysis plan shall be revised to include waste analysis data from testing of drums stored in the East Pad area indicating that these drums do not contain free liquids. In addition, the waste analysis plan shall be revised to include a description of the waste analysis procedures used to determine that these wastes do not contain free liquids prior to their being placed into storage.

#### 8. C-1b <u>Hazardous Characteristics for Wastes Stored in New Tank</u> Systems [OAC 3745-55-92 (A) (2)]

The waste analysis plan shall be modified to indicate the characteristics of the hazardous wastes to be stored in the new tank systems proposed for the facility.

#### 9. C-2a Waste Analysis Parameters and Rationale [OAC 3745-54-13 (B) (1)]

The Part A application for the facility indicates that hazardous wastes having the waste codes D001, F001/F002, F003/F005, and F004 may also possess the toxicity characteristic for metal constituents found in OAC 3745-51-24 and 40 CFR 261.24 and that these hazardous wastes and those having the D002 wastes code may also possess the characteristic of toxicity for organic constituents as defined in 40 CFR 261.24. However, the waste analysis plan does not indicate how hazardous wastes to be received by the facility will be evaluated to determine if they are also hazardous because of the characteristic of toxicity. In addition, no information is presented to establish that corrosive waste to be received by the facility are not also hazardous based upon the characteristic of toxicity for metal constituents. The waste analysis plan shall be revised to include all necessary information to establish that wastes received by the facility are being adequately characterized for the characteristic of toxicity.

#### 10. C-2b <u>Test Methods</u> [OAC 3745-54-13 (B) (2)]

The waste analysis plan shall be modified to include the test methods used to evaluate hazardous wastes to be received by the facility. This shall include reference to appropriate testing procedures found in U.S.EPA Publication SW-846 "Test Methods for Evaluating Solid Wastes" or alternate equivalent published procedures. In instances where site specific analytical methods have been developed, these methods shall be provided in the permit application along with quality assurance/quality control documentation developed by the laboratory to verify the accuracy of these methods.

#### 11. C-2c <u>Sampling Methods</u> [OAC 3745-54-13 (B) (3)]

The permit application must be revised to include a description of the methods which will be used to sample bulk liquid shipments of waste acids (tanker trailers) and tote containers.

#### 12. C-2e Additional Requirements for Wastes Generated Off-Site [OAC 3745-54-13 (C)]

The waste analysis plan must be revised to fully describe the protocols which will be used to analyze incoming wastes for the characteristic of toxicity. Specific analytical or documentation requirements for generators of off-site wastes received by the facility must be described.

### 13. C-2f General Requirements for Ignitable, Reactive or Income ible Wastes [OAC 3745-54-13 (B) (6) and 3745-54-17]

The Waste Analysis Plan shall be modified to present a protocol meet to meet the additional waste analysis requirements for ensuring that containerized ignitable or incompatible wastes are not placed into the same tank in a manner which could result in a reaction as specified in OAC 3745-54-17 (B). Protocols are provided for testing the compatibility of containerized wastes destined for hazardous waste fuels blending and for acid/base neutralization. However, no protocol is presented for solvent wastes destined for distillation and/or recycling.

## 14. C-3a(1) Waste Characteristics: Solvent Wastes and Dioxin- Containing Wastes [OAC 3745-54-13 (A)(1), 3745-59-07 (A), 3745-59-30, 3745-59-40]

The waste analysis plan shall be revised to provide a complete description of the methods to be used to verify whether solvent wastes received by the facility are restricted from land disposal. This description shall include the following information:

- a. representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- b. for waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off site; and
- d. a description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for F solvent wastes.

#### 15. C-3a(2) <u>Waste Characteristics: California List Wastes</u> [OAC 3745-54-13 (A)(1), 3745-59-07 (A), 3745-59-32].

The waste analysis plan shall be revised to describe methods used to determine if wastes accepted by or generated by the facility are restricted from land disposal based upon the California list prohibitions specified in OAC 3745-59-32. This description shall include the following information:

- a. representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;
- b. for waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off site; and
- d. a description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for California list wastes.

## 16. C-3a(3) Waste Characteristics: First Third Wastes with Treatment Standards [OAC 3745-54-13 (A)(1), 3745-59-33 (A) through (E), 3745-59-07 (A), 3745-59-41 to 43].

The waste analysis plan shall be revised to describe methods used to determine if first third wastes accepted by or generated by the facility are restricted from land disposal. This description shall include the following information:

- a. representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and for the identification of the appropriate treatment standard;
- b. for waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;

- c. sample land disposal restriction notifications submed ed to the facility and used by the facility for shipments of har dous wastes off site; and
- d. a description of operational control procedures us to properly classify still bottoms, hazardous waste fuels, a ther wastes generated by the facility for the purposes of control ce with the land disposal restriction regulations for first to astes.

## 17. C-3a(4) Waste Characteristics: Second Third Was with Treatment Standards [OAC 3745-54-13 (A)(1), 3745-59-34 (A) through (G), 3745-59-34 (I), 3745-59-41 to 43]

The waste analysis plan shall be revised to describe methods used to determine if second third wastes accepted by or generated by the facility are restricted from land disposal. This description shall include the following information:

- a. representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and for the identification of the appropriate treatment standard;
- b. for waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste;
- c. sample land disposal restriction notifications submitted to the facility and used by the facility for shipments of hazardous wastes off site; and
- d. a description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for second third wastes.

#### 18. C-3b(1) Retention of Generator Notices and Certifications [OAC 3745-59-07 (A)]

The waste analysis plan shall be modified to describe record keeping protocols for land disposal restriction notifications received by the facility and provided to off-site facilities.

#### 19. C-3b(2) Notification and Certification for Wastes to be Further Managed [OAC 3745-59-07 (B) (6)]

The waste analysis plan shall be revised to describe protocols for the notification and certification regarding applicable land disposal restrictions for all hazardous wastes shipped from the facility to off-site facilities for further management.

#### 20. C-3c(1) Restricted Wastes Stored in Containers [OAC 3745-59-50 (A)]

The waste analysis plan shall be revised to document that restricted wastes are stored in containers solely for the purpose of accumulating sufficient quantities of the waste to facilitate proper disposal, treatment or recovery as required by OAC 3745-59-50. In addition, the facility must provide protocols indicating that each container will be clearly marked to identify its contents and the date that the container entered into storage.

#### 21. C-3c(2) Restricted Wastes Stored in Tanks [OAC 3745-59-50 (A) (2) (b)]

The waste analysis plan shall be revised to demonstrate that each tank will be clearly marked with a description of its contents, the quantity and type of each hazardous waste received, and the date of each accumulation period. Alternatively, the permit may demonstrate that such information for each tank will be recorded and maintained in the operating record of the facility.

#### 22. D-1a(1) <u>Description of Containers</u> [OAC 3745-55-71 and 3745-55-72]

The permit application must be revised to include information regarding the approximate number of tote-type containers which will be managed in the solvent and corrosive waste drum storage areas. In addition, a description of the construction materials, dimensions and usable volumes, DOT or other manufacturer specifications, liner specifications (if applicable), container condition (new, used or reconditioned) and markings or labels which will be utilized must be provided for the tote-type containers.

#### 23. D-1a(3)(a) Requirement for Base or Liner to Contain quids [OAC 3745-55-75 (B)(1)]

The permit application must be modified to provide information demonstrating the capability of the container storage areas to contain liquids. This demonstration shall include an engineering evaluation of the base design and construction materials as well as the adequacy of the patching of cracks in the east warehouse storage area. In addition, the application shall also be modified to include a demonstration that the base is compatible with the waste stored in the units or shall provide information regarding proposed treatment or coating of the base in each unit necessary to make it compatible with the wastes to be stored there.

#### 24. (D-2a) Tank Systems Description [OAC 3745-50-44 (C) (2), 3745-55-94 (A)]

The description of tank systems presented in the permit application must be revised to provide the location of each tank system currently at the facility as well as detailed location information for each new tank system. The figures in the permit application do not indicate that tank V-714 has been replaced by tank V-120. In addition, a description and diagrams indicating the precise volume and location for all proposed new tank systems at the facility must be provided, as well as more detailed descriptions of the construction and design of the tanks in the proposed new corrosive waste tank farm.

#### 25. D-2a(1) <u>Dimensions and Capacity of Each Tank</u> [OAC 3745-50-44 (C) (2) (b)]

The description of the dimensions and capacity of the proposed new corrosive waste storage tanks at the facility is vague and must be revised. The maximum volume for these tanks must be clearly indicated in the permit application, and a thorough description of acceptable design parameters for these tanks must be provided. In addition, acceptable design criteria for shell thickness for all of the proposed new tank systems shall be provided. Information shall be incorporated by reference into applicable sections of section D to provide shell thickness data for existing tanks at the facility.

## 26. D-2a(2) Description of Feed Systems, Safety Cutoff, Bypass Systems, and Pressure Controls [OAC 3745-50-44 (C)(2)(c), 3745-55-94 (B)]

The permit application must be revised to provide a complete description of the waste feed system for all existing and proposed tanks at the facility, including the types and locations of all pumps, valves, piping and other equipment used in the transfer of wastes. In addition, measures used to provide for waste feed cutoff and/or bypass in emergency situations must be described, as well as the protocols, equipment and structures used to prevent spills from the tank systems and transfer equipment.

#### 27. D-2a(3) Diagram of Piping, Instrumentation and Process Flow [OAC 3745-50-44 (C)(2)(d)]

Process flow diagrams must be provided for all existing and proposed tanks included in the permit application. In cases where process flow varies depending upon the type of waste managed in a particular tank system, all scenarios for process flow shall be presented. Where several tanks serve the same function, the process flow description may be generalized, but detailed diagrams of piping and instrumentation for all existing and proposed tank systems must be provided. These diagrams shall include all piping and appurtenant equipment such as hose connections, pumps, etc., and shall indicate the entire network of piping from loading areas to waste unloading areas or connections to process equipment. Instrumentation diagrams shall indicate the type and location of all instrumentation as well as any operator monitoring locations in the facility (i.e. the location of the placement of alarms monitored by the operators).

In cases where piping or instrumentation for proposed new tank systems may vary dependent upon final design of the tank system, the diagrams and text of the permit application shall clearly indicate that these diagrams may be subject to change and that final construction diagrams will be submitted to Ohio EPA for review and approval prior to installation. A schedule for the submittal of these diagrams to Ohio EPA (in relation to the anticipated starting date for construction) shall be provided.

## 28. D-2a(4) <u>Ignitable, Reactive and Incompatible Wastes</u> [OAC 3745-50-44 (C)(2)(j), 3745-54-17 (B), 3745-55-98 and 99]

The permit application shall be revised to provide worksheets demonstrating that each existing and proposed tank against storing ignitable wastes will be located in compliance with the requirements for protective distances required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code".

#### 29. D-2b(1) Assessment of Existing Tank System Integrity [OAC 3745-50-44 (C) (2) (a), 3745-55-91]

The permit application shall be revised to include an assessment of the structural integrity and suitability of the existing waste acid tank for handling hazardous waste which has been reviewed by an independent, qualified, registered professional engineer which meets the requirements found in OAC 3745-55-91. For purposes of compliance with this requirement, Hukill Chemical may incorporate the applicable portions of the existing tank assessment submitted to Ohio EPA in May 1989 into the permit application.

### 30. D-2c(1) Assessment of New Tank System Integrity [OAC 3745-50-44 (C) (2) (a) and (e), 3745-55-92 (A)]

The permit application shall be revised to provide a schedule for the submission of integrity assessments for new tank systems to Ohio EPA prior to the commencement of construction. This schedule shall indicate dates for submission in relation to the anticipated starting date for construction. In addition, the permit application shall be revised to outline the contents of the tank integrity assessments to document compliance with applicable requirements.

### 31. D-2c(2) Description of Tank System Installation and Testing Plans and Procedures [OAC 3745-50-44 (C) (2) (f), 3745-55-92 (B) to (E)]

The permit application must be revised to provide the pollowing information:

a. a demonstration that proper handling procedures will be added and to during installation of new tank systems to prevent damage to the systems;

- b. documentation that an independent, qualified, registered professional engineer will inspect the tank systems prior to placing new tank systems into service (this inspection must be conducted to detect the presence of weld breaks, punctures, scrapes of protective coatings, cracks, corrosion or other structural damages or inadequate construction/installation);
- c. documentation that all discrepancies identified by the installation inspection shall be remedied prior to placing the tanks into service;
- d. a description of methods which will be utilized to test all new tanks and ancillary equipment for tightness prior to their being placed into use (the permit application must also indicate that if a tank system is found not to be tight, all repairs necessary to remedy the leaks in the system will be performed prior to placing the tanks into use); and
- e. a description of methods to be used to support and protect ancillary equipment against physical damage and excessive stress due to vibration, expansion, or contraction.
- 32. D-2d(1)(a) <u>Tank Age Determination</u>
  [OAC 3745-50-44 (C)(2)(g), 3745-55-93 (A)]

Information must be presented regarding the age of tank V-117.

- 33. D-2d(1)(b) Requirements for Secondary Containment and Leak Detection [OAC 3745-50-44 (C)(2)(g), 3745-55-93 (B) and (C)]
  - D-2d(1)(c)

    Requirements for External Liner, Vault, Double- Walled

    Tank or Equivalent Device

    [OAC 3745-50-44 (C) (2) (g), 3745-55-93 (D) and (E)]

The following information must be provided to document compliance with the requirements for secondary containment for tank systems at the facility:

a. Tanks V-114, V-214, V-314, V-414, V-514, V-614 and V-120

The text describing the secondary containment system for the existing waste solvent storage tank farm shall be revised to reference the documentation provided in exhibit D-2. In addition, a detailed as-constructed plan sheet for the secondary containment dike for these tanks shall be included in the application.

#### b. Tank V-117, Tanks V-6000E and V-6000W

Tank V-117 and tanks V-6000E and V-6000W are located in sparate containment areas from other permitted hazardous was storage tanks at the facility. The permit application must be sised to provide detailed engineering plans and descriptions regulating the design construction, and operation of these secondary containment systems in order to document compliance with the requirements of OAC 3745-55-93 (A) to (F).

#### c. Proposed Dikes B-4, F-2, East Warehouse Accumulation Tanks, New Corrosive Waste Tanks

- The description for the secondary containment system for the proposed new hazardous waste tank systems shall be revised to include calculations of the minimum necessary containment volume for each system based upon tank volumes and required allowances for precipitation events.
- 2. The description of the containment system for the proposed new waste tanks must provide information regarding the impermeable materials which will be used to line or coat the containments systems to prevent migration of wastes into the concrete.
- 3. The secondary containment system for the proposed new hazardous waste tanks in the east warehouse area is described as the entire floor area. It would appear to be more appropriate for the purposes of spill containment to construct a diked area surrounding the proposed tanks to limit the extent of spread of wastes should the tank systems spill, leak or fail. The permit application shall be revised to describe methods which will be used to control spills from these systems in a manner consistent with the requirements of OAC 3745-54-31.

## 34. D-2d(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment [OAC 3745-50-44 (C)(2)(g), 3745-55-93 (F)]

#### a. Existing Tank Systems

The permit application must be revised to indicate that all ancillary equipment (including all piping, flanges, joints, valves, and other connections) to the tank systems is equipped with secondary containment or are inspected for evidence of leaks daily. For pumps used with existing tank systems, the application must demonstrate that adequate secondary containment has been provided or that the pumps are sealless or magnetic coupling pumps which are visually inspected for evidence of leaks on a daily basis.

#### b. Proposed New Tank Systems

The permit application must be revised to present documentation regarding how the ancillary equipment associated with the proposed new tank systems at the facility will be designed and operated to comply with the requirements of OAC 3745-55-93 (F).

#### 35. D-2d(2) Requirements for Tank Systems Until Secondary Containment is implemented [OAC 3745-55-93 (I)]

The permit application must be revised to indicate that the existing spent acid tank and its ancillary equipment will be tested annually for leaks and/or assessed as required by OAC 3745-55-93 (I)(2) and (3) until secondary containment is provided. Specific test methods to be utilized to meet this requirement must be presented.

#### 36. D-2e Controls and Practices to Prevent Spills and Overflow [OAC 3745-50-44 (C) (2) (i), 3745-55-94 (A) and (B)]

- a. For existing tanks at the facility, the permit application must be revised to describe methods to be used to prevent spillage of wastes during the disconnection of flexible hoses following the transfer of wastes (see also comments 41 and 46).
- b. For proposed new tank systems at the facility, a detailed description of management practices which will be utilized to prevent tank failure, leaks, spills and overflows, meeting the requirements of OAC 3745-55-94 and 95, must be provided.

#### 37. F-1a(2)(b) Means to Control Entry [OAC 3745-54-14 (B)(2)]

The application must be modified to indicate procedures the will be used to prevent unauthorized persons from entering the tity during periods when entrance gates are open.

#### 38. F-2b(1) Container Inspection [OAC 3745-55-74]

The application must be revised to include updated container area inspection forms which will be used in the proposed new hazardous waste container storage areas.

#### 39. F-2b(2) <u>Tank Inspections</u> [OAC 3745-55-95]

The application must be revised to include updated inspection forms which will be used for the proposed new tank systems to be installed.

#### 40. F-2b(2)(a) Tank System External Corrosion and Releases [OAC 3745-55-95 (B) (1)]

The permit application (page F-7) indicates that the above ground piping associated with the hazardous waste tank systems will be inspected on a weekly basis. The application shall be revised to indicate that these inspections shall be conducted on a daily basis.

#### 41. F-2b(2)(c) Tank System Overfilling Control Equipment [OAC 3745-55-95 (A)]

Exhibit F-2 indicates that tank high level alarms will be tested weekly, while page F-6 of the application describes daily tests. Exhibit F-2 shall be revised to indicate that daily tests shall be conducted.

#### 42. F-3a Equipment Requirements [OAC 3745-54-32 and 3745-50-44 (A) (7)]

The "Equipment Requirements" section of Page F-8 must be modified to identify the specific sections in other portions of the permit application which describe how the facility complies with the requirements for internal and external communications equipment, emergency equipment and water supply for fire control. In addition, maps and descriptions found in the permit application must be revised to include information regarding how the facility will comply with the equipment requirements for all of the proposed new hazardous waste management units at the facility.

#### 43. F-3a(3) Emergency Equipment [OAC 3745-54-32 (C)]

The description of emergency fire and spill control equipment must be revised to 1) present a single table listing the type of equipment, its location and an outline of capabilities for all required equipment, and 2) to provide descriptions of proposed additional emergency equipment which will be provided in order to comply with the emergency equipment requirements for the proposed new hazardous waste management units at the facility.

#### 44. F-3a(4) Water for Fire Control [OAC 3745-54-32 (D)]

Documentation must be provided that there will be water available at adequate volumes and pressures to provide fire protection for the proposed new hazardous waste management units at the facility.

#### 45. F-3b Aisle Space Requirement [OAC 3745-54-35]

Page F-8 of the permit application incorrectly references section D-1 of the application as the location of information regarding compliance with aisle space requirements. The correct references shall be provided. In addition, more specific information must be provided regarding the maintenance of aisle space in areas where tote bins are stored.

#### 46. F-4a <u>Unloading Operations</u> [OAC 3745-50-44 (A) (8) (a)]

The following information must be provided or revised in the permit application regarding unloading operations:

- a. Figure F-3 must be revised to indicate the specific locations of current and proposed hazardous waste unloading areas.
- b. The description of unloading operations for wastes destined for recovery operations references plan sheet 2 as the location of the schematics for the gravity fed piping system and valves in the existing tank farm. The correct reference appears to be Figure F-6.
- c. Figure F-6 indicates that there are two valves on each unloading pipe for tanks in the existing tank farm. The application shall be revised to indicate that both valves shall be kept closed when the tanks are not being unloaded.

- d. Procedures used by facility personnel to ensure that all couplings, piping and valves are in good working order product to unloading waste from tanks storing hazardous waste must be a cribed.
- e. Piping diagrams and loading/unloading procedure for the proposed new hazardous waste storage tanks at the facility must be included in the permit application.
- f. A description of methods used to unload bulk shipments of solvents and corrosive wastes to storage tanks (both from tanker trailers and rail cars) shall be provided. In addition, the procedures used to transfer wastes from containers to tanks shall also be provided. The descriptions shall include the types of pumps used, their locations and methods utilized to prevent malfunctions and/or releases of hazardous wastes during the transfer of wastes.

#### 47. F-4b Run-off [OAC 3745-50-44 (A) (8) (b)]

The permit application must be revised to reference section B-2g in the description of run-off controls. In addition, the proposed system for segregation of rain water from the outfall 001 system must be included in the application. Run-off controls to be used for the proposed new hazardous waste management units at the facility must also be described in the application.

## 48. F-5b General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste [OAC 3745-50-44 (A) (9), 3745-54-17 (B)]

The permit application must be revised to indicate procedures which will be used to segregate potentially incompatible corrosive wastes in the proposed corrosive waste drum storage area. In addition, procedures used to prevent uncontrolled reactions which might threaten the facility or human health and the environment must be provided.

#### 49. F-5d Management of Incompatible Wastes in Containers [OAC 3745-50-44 (C) (1) (d), 3745-55-77]

Section D of the permit application indicates that containe which previously held corrosive wastes which when emptied are determine to be sound will be used for the storage of other wastes managed at the facility. The application must be revised to indicate procedure which will be followed to ensure that wastes are not placed in these containers which could potentially be incompatible with residues remaining from their previous use.

#### 50. F-5e Management of Ignitable or Reactive Wastes in Tank Systems [OAC 3745-50-44 (C) (2) (j), 3745-55-98]

The application must be revised to document procedures which will be used to store ignitable wastes in existing and proposed storage tanks in such a way that it will be prevented from igniting. In addition, documentation must be provided indicating that the proposed new spent solvent storage tanks will be located so that protective distances between the tanks and any public ways, streets, alleys or adjoining property lines will be maintained as required in Tables 2-1 through 2-6 of the NFPA "Flammable and Combustible Liquids Code".

#### 51. F-5f Management of Incompatible Wastes in Tank Systems [OAC 3745-55-99, 3745-50-44 (C) (2) (j)]

The permit application must be revised to provide a description of methods which will be employed to prevent incompatible corrosive wastes from being placed into the proposed corrosive waste tanks at the facility. In addition, methods to be used to prevent waste corrosives from coming into contact with incompatible residues remaining in unwashed tanks which previously held an incompatible waste must be provided.

#### 52. G-2 <u>Emergency Coordinators</u> [OAC 3745-54-52 (D), 3745-54-55]

The contingency plan shall be revised to include a description of the duties of the primary and alternate emergency coordinators for the facility.

#### 53. G-4a <u>Notification</u> [OAC 3745-54-56 (D)]

The Contingency Plan must be modified to indicate that in situations where there has been a release, fire or explosion which could threaten human health or the environment outside of the facility, the following reporting procedures will be followed:

- a. in cases where an assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify local authorities and shall be available to offer assistance; and
- the emergency coordinator shall immediately notify the Ohio EPA emergency response team and provide all information required by OAC 3745-54-56 (D)(2).

#### 54. G-4c <u>Assessment</u> [OAC 3745-54-56 (C) and (D)]

The contingency plan shall be revised to provide specific delines to be used by the emergency coordinator to assess emergency uations at the facility. These guidelines shall include criteria for otification of local and state emergency service authorities and the U.S.EPA onscene coordinator or the National Response Center. In addition, criteria to be considered for determining the need for evacuation of the facility or surrounding areas shall be described.

### 55. G-4e Prevention of Reoccurrence or Spread of Fires, Explosions, or Releases [OAC 3745-54-56 (E)]

The specific procedures which will be employed at the facility to prevent the spread of fires and explosions to other areas of the facility and the methods to be used to control releases of hazardous wastes during an emergency situation shall be full described in the contingency plan. In addition, procedures to be utilized following an emergency situation to ensure that fires, explosion or releases will not reoccur and that all hazardous waste management units are safe for renewed operation shall be described.

#### 56. G-4f Storage and Treatment of Released Materials [OAC 3745-54-56 (G)]

Specific procedures to be utilized to recover and store released materials at the facility must be described in the contingency plan. In addition, a more thorough discussion of the methods to be used to evaluate released materials for disposal following recovery must be provided.

#### 57. G-4g <u>Incompatible Waste</u> [OAC 3745-54-56 (H) (1)]

The contingency plan shall be revised to describe precautions to be taken to prevent the storage of incompatible wastes in areas affected by fires, explosion or releases of hazardous waste until cleanup procedures are completed.

#### 58. G-4h Post-Emergency Equipment Maintenance [OAC 3745-54-56 (H)(2)]

The procedures to be utilized by the facility to ensure that all emergency equipment is replenished and restored to good working order prior to recommencing operations shall be fully described in the contingency plan.

#### 59. G-4i Container Spills and Leakage [OAC 3745-54-52, 3745-55-71]

The contingency plan must be revised to specify safety precautions for responding to container spills and leakage. In addition, internal reporting and tracking procedures used to ensure that spills and leakage from containers have remediated in an expeditions manner shall be described

#### 60. G-4j(1) Stopping Waste Addition [OAC 3745-55-96(A)]

The contingency plan must be revised to indicate that the flow of hazardous waste into tank systems will be stopped immediately should there be a leak or spill or should the tank system be found to be unfit for use. In addition, the plan must provide for a prompt inspection of the tank system to determine the cause of the release.

#### 61. G-4j(2) Removing Waste [OAC 3745-55-96(b)]

The contingency plan must be revised to specify that in the case of releases from tank systems that hazardous wastes will be removed from the system to the extent necessary to prevent further releases and to allow inspection and repair of the tank system. In cases where the release is to a secondary containment system, the contingency plan must specify that all released hazardous waste will be removed within 24 hours.

### 62. G-4j(3) Containment of Visible Releases [OAC 3745-55-96(C)]

The contingency plan must specify that a visual inspection of the extent of releases from tank systems will be conducted immediately upon discovery. Procedures to be used to prevent the migration of the leak of spill to soils and surface water must also be specified. In addition, the plan must also specify that visible contamination of the soil or surface water will be removed and containerized for proper disposal.

#### 63. G-4j(4) Notifications, Reports [OAC 3745-55-96(D)]

The contingency plan must be revised to indicate that any release from tank systems to the environment greater than one pound or which cannot be immediately cleaned up will be reported to the Director of Ohio EPA within 24 hours.

In addition provisions shall be added that a report describe the likely route of migration of the release; the characteristics of the surrounding soil; the results of any monitoring or sampling conducted in connection with the release; the proximity to downgradient counking water, surface water, and populated areas; and a description of response actions taken or planned will be submitted to the Director of Ohio EPA within thirty days of any release exceeding the criteria set in OAC 3745-55-96(C)(2).

#### 64. D-4j(5) Provision of Secondary Containment, Repair or Closure [OAC 3745-55-96(E)]

The contingency plan must be revised to indicate that following a release from any tank system, the requirement found in OAC 3745-55-96(E)(2) through (4) will be met or that the tank system will be closed according to the requirements of OAC 3745-55-97. The specific procedures for evaluating and repairing tank systems following releases must be described as well as methods for ensuring that repaired system are fit for use prior to their being placed into service.

#### 65. Certification of Major Repairs [OAC 3745-55-96(F)]

The contingency plan must be revised to indicate that the facility will comply with the requirements for the certification of any major repairs to tank systems from which there has been a leak or spill or which have otherwise failed by an independent, qualified, registered professional engineer prior to placing the tank back into service. Provision for the submission of the certification to the director of the Ohio EPA within seven days of returning the tank to use must also be included.

#### 66. G-5 Emergency Equipment [OAC 3745-54-52 (E)]

See comment for F-3a(3) (comment 42).

#### 67. H-1 Outline of the Training Program [OAC 3745-54-16 (D) (1) and (2)]

Section H-1 shall be expanded to provide a brief description of the introductory and continuing training program established to prepare personnel to operate or maintain the facility in a safe manner. This outline shall also contain a brief description of how the training is designed to meet actual job tasks.

#### 68. H-1e Training for Emergency Response [OAC 3745-54-16 (A) (3)]

The permit application must be revised to demonstrate that employees are trained in methods to inspect, repair and replace facility emergency equipment, are trained in key parameters for waste feed cut off systems, the use of communications and alarm systems and in shut down procedures.

#### 69. I-la Closure Performance Standard [OAC 3745-55-11]

The facility closure plan shall be revised to include a description of how closure will meet the closure performance standard by minimizing the need for further maintenance and eliminating, controlling or minimizing the post-closure release of hazardous waste and hazardous constituents.

In addition to the comments listed below, the facility closure plan must be modified to meet the content requirements found in OAC 3745-55-12 which are fully described in the latest edition of the Ohio EPA "Closure Plan Review Guidance".

#### 70. I-1c <u>Maximum Waste Inventory</u> [OAC 3745-55-12 (B) (3)]

The maximum inventory of hazardous wastes and hazardous constituents for each hazardous waste management unit at the facility must be provided. This inventory shall provided a complete list of hazardous waste and hazardous constituents (by EPA hazardous waste number and generic chemical name) specific to each unit, as well as an estimate of the maximum amount of each hazardous waste ever treated, stored or disposed in each unit. Reference to the facility's Part A application is not sufficient to meet this requirement.

### 71. I-1d Schedule for Closure [OAC 3745-55-12 (B) (6)]

The schedule for closure of the facility shall be revised in accordance with revisions made to the facility closure plan as the result of the comments provided herein. In addition, the facility closure plan shall be revised to clearly indicate critical dates for closure activities which will require the attendance of the certifying professional engineer or his/her designated representative. A provision shall be made to notify the Ohio EPA inspector designated for the facility five (5) working days prior to conducting the identified critical closure activities.

#### 72. I-1e(1) <u>Inventory Removal</u> [OAC 3745-55-12 (B) (3)]

The permit must include a discussion of the methods which will be used to remove, transport, treat, store or dispose of all homerdous mastes at the facility at the time of closure and identify the types of off-site hazardous waste management units to be used for treatment or disposal of hazardous wastes from the facility.

### 73. I-le(2) Disposal or Decontamination of Equipment, Structures, and Soils [OAC 3745-55-12 (B) (4), 3745-55-14]

The closure plan must be revised to provide a detailed description of the steps needed to decontaminate or dispose of all equipment or structures associated with the hazardous waste management units at the facility. This description shall include the following information:

- a. a complete description of all hazardous waste management units at the facility to be closed as identified in the Part A application, including: a list of associated equipment; detailed drawings of the units to be closed and all ancillary equipment; a description of the period of use, identification of the hazardous wastes managed in the unit (by EPA identification number and chemical name); pertinent physical data and construction details; and a description of underlying soils and site geology.
- b. decontamination procedures for structures and equipment;
- c. criteria for determining whether structures, equipment or underlying soils are contaminated;
- d. management practices for wastes generated during closure;
- e. methods and criteria for the verification of the effectiveness of closure activities; and
- f. quality assurance/quality control procedures for the implementation of closure including sample collection and analysis.

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## 74. I-le(3) Closure of Disposal Units/Contingent Closures [OAC 3745-55-78, 3745-55-97, 3745-55-12 (C), 3745-50-44 (A)(13)]

The closure plan shall be revised to describe how the facility shall implement closure and post-closure care should information gathered during closure activities indicate that it will be necessary to close any of the hazardous waste management units as a landfill. In addition, the closure plan should also provide for the contingency of the use of health-based risk assessments for the demonstration of clean closure.

## 75. I-le(4) <u>Closure of Containers</u> [OAC 3745-55-78, 3745-55-12 (B)(3)]

The closure plan shall be revised to include a complete description of the methods to be utilized to close the hazardous waste container storage areas at the facility. This description shall address the and following: hazardous waste removal disposal; decontamination and disposal; decontamination methods for contaminated equipment, structures and soils, as well as management protocols for wastes generated during closure; methods to be used to verify the adequacy of decontamination and/or removal efforts (i.e. clean standards for decontaminated equipment, structures and impacted soils and/or ground water); and methods to be used for disposal of wastes and residues generated during closure. In revising the closure plan, the facility should consult the Ohio EPA "Closure Plan Review Guidance".

## 76. I-le(5) <u>Closure of Tanks</u> [OAC 3745-55-97, 3745-55-12 (B) (3)]

The closure plan shall be revised to include a complete description of the methods to be utilized to close the hazardous waste storage tanks. This description shall address the following: hazardous waste removal and disposal; tank decontamination and disposal; decontamination methods for contaminated ancillary equipment, and associated structures and soils, as well as management protocols for wastes generated during closure; methods to be used to verify the adequacy of decontamination and/or removal efforts (i.e. clean standards for decontaminated equipment, structures and impacted soils and/or ground water); and methods to be used for disposal of wastes and residues generated during closure. In revising the closure plan, the facility should consult the Ohio EPA "Closure Plan Review Guidance".

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## 77. I-3a Certification of Closure [OAC 3745-55-15]

Section I-1G of the closure plan shall be revised to include at that the certification of closure to the Director of Ohio RA shall be accompanied by all supporting documentation verifying that closure has been completed according to the approved closure plan.

## 78. I-4 Closure Cost Estimate [OAC 3745-50-44 (A) (15), 3745-55-42]

The closure cost estimate for the facility must be revised to include a detailed listing of all cost which will be incurred during closure including costs for the services of the independent professional engineer, personnel costs, and the cost for sampling and analysis necessary for the verification of the adequacy of closure procedures.

#### 79. NOTICE

The financial assurance documentation provided in the Part B permit application is not the most recent for the facility. Currently it is outdated by two years. Therefore, the Part B application is technically inadequate with respect to financial assurance. In order for the application to be considered adequate, Hukill Chemical Corp. must provide the following information:

- 1) A copy of the most recent (1990) closure estimate;
- A copy of the August 1, 1989 Letter of Credit and August 4,1989 Trust Agreement, and any 1990 updates to these documents;
- 3) A copy of the current (1990) Hazardous Waste Facility Certificate of Liability Insurance.

END OF COMMENTS

#### HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400 • FAX 216 / 232-9477

Over Forty Years of Quality Products and Services

July 3, 1990

Dr. Richard Shank, Director Ohio EPA P.O. Box 1049 1800 WaterMark Drive Columbus, Ohio 43266-0149 Attention: Mr. Tom Crepeau

> Re: Request for a Permit Revision US EPA ID No. OHD001926740 Ohio Permit No. 02-18-0315

Dear Dr. Shank:

Hukill Chemical Corporation (HCC) is requesting a revision to their Interim Status RCRA Permit due to a Rule Change, Toxic Characteristics (TC).

HCC recycles spent solvents through distillation processes. The distillation bottoms and other non-recyclable solids are shipped to permitted facilities for use as supplemental fuel, and thus, thermally destructed. Some wastes may, infrequently, be sent to permitted facilities for Commercial Incineration.

The new TC regulations make D wastes of many of the wastes HCC accepts as F and U wastes under their permit. HCC also does not want to reject recyclable materials from potential customers which may contain trace amounts of D wastes that are above the regulatory levels. Although HCC does not wish to handle some of the TC chemicals, they must have permitting for them so that if the chemicals are present in D001 or F wastes in trace amounts, the solvents can still be recovered.

HCC would like to add the following wastes to their permit:

D010		Selenium	D011		Silver
D012		Endrin	D013		Lindane
D014		Methoxychlor	D015	• • •	Toxaphene
D016		2,4-D	D017		2,4,5-TP (Silvex)
D018		Benzene	D019		Carbon Tetrachloride
D020	• • •	Chlordane	D021		Chlorobenzene
D022	• • •	Chloroform	D023	• • •	o-Cresol
D024		m-Cresol	D025		p-Cresol
D026		p-Cresol	D027		1,4-Dichlorobenzene
D028		1,2-Dichloroethane	D029		1,1-Dichloroethylene
D030	• • •	2,4-Dinitrotoluene	D031		Heptachlor
D032		Hexachlorobenzene	D033		Hexachloro-1,3-butadiene
D034		Hexachloroethane	D035		Methyl Ethyl Ketone
D036		Nitrobenzene	D037		Pentachlorophenol

Page 2 Dr. Richard Shank July 3, 1990

> D038 ... Pyridine D039 ... Tetrachloroethylene

D040 ... Trichloroethylene D041 ... 2,4,5-Trichlorophenol

D042 ... 2,4,6-Trichlorophenol

D043 ... Vinyl Chloride

HCC has submitted a previous revision request, dated March 31, 1989, and Revised Part A, dated December 14, 1989, for the remaining six toxic metals which are now listed under the TC Rule. Their D codes are D004, D005, D006, D007, D008 and D009.

Please contact me at Hukill Chemical, (216) 232-9400 if you have any questions or require more information regarding the above.

Sincerely yours,

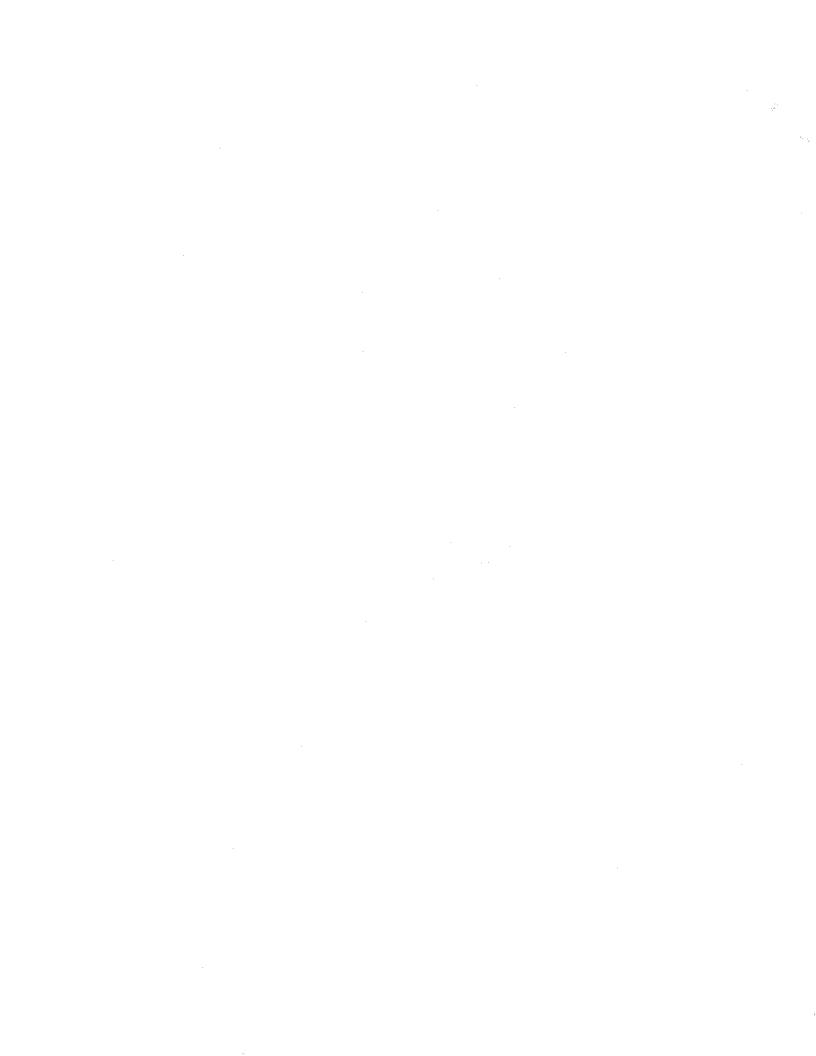
Edgar M. Price

Engineering Consultant

EMP:pk

cc: Robert L. Hukill, President Paul Anderson, Ohio EPA, Twinsburg Lisa Pierard, USEPA, Region V - Chicago

Nick Andrianas, Eder Associates





#### State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149

Richard F. Celeste Governor

#### CERTIFIED MAIL

August 31, 1989

Mr. Robert L. Hukill Hukill Chemical Corp. 7013 Krick Road Bedford, Ohio 44146 RE: Hukill Chemical Corp.
0HD 001 926 740 0010 02-18-0315 0010 02-18-0315

SEP - 5 1989
SEP - 5 1989
WASTENANAGEMENT DIVISION V

Dear Mr.Hukill:

Thank you for submitting Part B of the Resource Conservation and Recovery Act (RCRA) permit application for your facility.

As you may know, Ohio has recently been delegated authorization to operate its hazardous waste management program in lieu of the Federal hazardous waste program. Ohio now has the responsibility for issuing Resource Conservation and Recovery Act (RCRA) permits for hazardous waste treatment, storage and disposal facilities subject to the authority retained by U.S. EPA under the Hazardous and Solid Waste Amendment of 1984 (HSWA) to RCRA. Since the requirements and prohibitions imposed by HSWA are effective immediately regardless of a State's authorization status, USEPA will continue to implement the applicable HSWA requirements. In other words under HSWA, there will continue to be a dual State/Federal regulatory program in Ohio. To the extent Ohio's authorized program is unaffected by HSWA, the Ohio program will operate in lieu of the Federal program. To the extent HSWA-related requirements are in effect, USEPA will continue to administer and enforce those portions of HSWA in Ohio (which may include the issuance of full or partial permits) until Ohio receives authorization to do so and until that time, Ohio will continue to assist USEPA's implementation of the HSWA requirements under a cooperative agreement.

The Ohio EPA Division of Solid and Hazardous Waste Management has conducted a "completeness" review of your Part B application and has determined it to be complete. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapter in the Ohio Administrative Code and the corresponding Federal regulations. Completeness means that all items required by regulation appear to have been addressed in your application, but does not mean that these items have been addressed substantively or in adequate detail which would allow a determination to be made as to whether the proposal complies with the Director's Hazardous Waste Facility Standards Chapters.

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We will now begin our "technical adequacy" review during which we analyze the application for compliance with applicable hazardous waste management requirements of State and Federal law. We will be working in concert with the U.S. EPA throughout the course of the technical adequacy review. Please understand that either, or both, of our Agencies may request additional information from you if it is necessary to clarify, modify, or supplement previous submissions in order to substantively evaluate the permit application for technical adequacy.

If you have any questions concerning the review, or the level of delail we expect, please do not hesitate to contact Robert F. Babik, at (614) 644-2949.

Finally, as you may know Ohio's hazardous waste law was recently amended to authorize the Attorney General to conduct background investigations on permittees and applicants for permits for hazardous waste treatment, storage and disposal facilities. Every applicant must file a disclosure statement with both the Ohio EPA and the Attorney General, on a form developed by the Attorney General at the same time that the applicant files his hazardous waste permit application with the Ohio EPA (ORC 3734.42(A)). The disclosure statement and the investigative report provided by the Attorney General will form a basis along with the complete and technically adequate permit application for the State's determination on the permit renewal. If there are questions concerning the disclosure statement please contact Brian Zina, of the OAG at (614)466-2766.

Yours truly,

E.A. Kitchen, Manager

Chrand A. Kitchen

Technical Assistance and Engineering Section Division of Solid and Hazardous Waste Management

EAK/pas

cc: Lisa Pierard, USEPA
Joel Morbito, USEPA
Paul Anderson, NEDO, DSHWM, OEPA
Robert F. Babik, CO, DSHWM, OEPA
Ed Lim, CO, DSHWM, OEPA

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### HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD · BEDFORD, OHIO 44146-4493 · 216 / 232-9400

Over Forty Years of Quality Products and Services

June 5, 1989



Ms. Lisa Pierard

RCRA Activities

Part B Application

U.S. EPA - Region V

Re: Hukill Chemical Corporation Part B Application OHD 001 926 740 Ohio 02-18-0315

Chicago, Illinois 60690-3587

Dear Ms. Pierard,

Enclosed is the "Certification of Closure" addition for completing our Part B as requested in Mr. Edward Kitchen's May 12, 1989 memo to Robert Hukill. This page contains the required additional part for Section I. It should replace the current page which is also Revision 2, but dated 2/24/89.

If you have any questions or comments regarding the attached, please call Ed Price at Hukill Chemical, (216) 232-9400.

Very truly yours,

Edgar M. Price

Engineering Consultant

EMP/pk Enclosure

cc: Tom Crepeau/Robert F. Babik

Paul Anderson Robert Hukill

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The procedures for decontaminating equipment is described in Section I-1-d. Any tank trucks owned by Hukill would be decontaminated by the same process as described for tanks.

#### I-1g CERTIFICATION OF CLOSURE

HUKILL CHEMICAL WILL SEND A CERTIFICATION OF FINAL CLOSURE TO THE DIRECTOR OF THE OHIO EPA AND TO THE REGIONAL ADMINISTRATOR OF THE U.S. EPA BY REGISTERED MAIL WITHIN 60 DAYS AFTER THE COMPLETION OF FINAL CLOSURE. THE CERTIFICATION WILL STATE THAT THE CLOSURE HAS BEEN COMPLETED ACCORDING TO THE SPECIFICATIONS OF AN APPROVED CLOSURE PLAN. THE CERTIFICATION WILL BE SIGNED BY THE PRESIDENT OF HUKILL CHEMICAL AND BY A REGISTERED PROFESSIONAL ENGINEER.

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State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149

Francine



Richard F. Celeste Governor

RE:Hukill Chemical Corp. Re # OHD 001 926 740 OHIO 02-18-0315

#### CERTIFIED MAIL

May 12, 1989

Mr. Robert L. Hukill Hukill Chemical Corp. 7013 Krick Road Bedford, Ohio 44146

Dear Mr. Hukill:

Thank you for submitting the revisions on February 24, 1989 to the Part B of the Resource Conservation and Recovery Act (RCRA) permit application for your facility pursuant to both the State and Federal Part B call-in. Hukill Chemical Corporation adequately addressed the deficiencies noted in the January 24, 1989 notice of deficiency. However, based on additional review of the Part B application an additional missing item was noted as indicated on Attachment A.

As you may know, Ohio, which has a State hazardous waste program, has not yet been delegated full authority to conduct the federal hazardous waste program. As a result, hazardous waste facilities operating in Ohio must obtain both a State and Federal RCRA permit. However, pursuant to an agreement reached with U.S. EPA, Ohio EPA is conducting initial "completeness" reviews and making "completeness" determinations on behalf of the U.S. EPA for facilities that store or treat hazardous waste in containers and tanks. In other words, until such time as the State is authorized to conduct the federal hazardous waste program, Ohio EPA will examine RCRA permit applications to ascertain whether or not the application contains all required information in order to be deemed "complete" and thereafter Ohio EPA and U.S. EPA will concurrently review the permit application for technical adequacy.

The Ohio EPA Division of Solid and Hazardous Waste Management has conducted a "completeness" review of your Part B application and has determined it to be incomplete. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapter in the Ohio Administrative Code and the corresponding Federal regulations.

We have enclosed comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to

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Ohio EPA within 30 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

- 1. Old language is over-struck.
- 2. New language is capitalized
- 3. Page headers should indicate date of submission.
- 4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Please send one copy each to:

Tom Crepeau/Robert F. Babik
Ohio EPA, DSHWM
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

Paul Anderson, Ohio EPA, DSHWM, NEDO 2110 East Aurora Road Twinsburg, Ohio 44087

Lisa Pierard, RCRA Activities Part B Application U.S. EPA - Region V Chicago, Illinois 60690-3587

Upon receipt of a satisfactory response regarding all the information requested, Ohio EPA will notify you in writing that the application is

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complete. Our determination of completeness will mean that all items required by regulation appear to have been addressed in your application, but does not mean that these items have been addressed substantively or in adequate detail which would allow a determination to be made as to whether the proposal complies with the Director's Hazardous Waste Facility Standards Chapters. We may request additional information from you, if it is necessary to clarify, modify or supplement previous submissions of information in order to substantively evaluate the permit application for technical adequacy.

Failure to submit a complete permit application or to correct deficiencies in the application may result in the following: 1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, 2) denial of the application for a renewal permit, 3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action, or 4) the application for a renewal permit may be returned to you as incomplete.

If you have any questions concerning the review of the permit application, or the level of detail we expect, please do not hesitate to contact Robert F. Babik, at (614) 644-2949.

Finally, as you may know, Ohio's hazardous waste law was recently amended to authorize the Attorney General to conduct background investigations on permittees and applicants for permits for hazardous waste treatment, storage and disposal facilities. Every applicant must file a disclosure statement with both the Ohio EPA and the Attorney General on a form developed by the Attorney General, at the same time that the applicant files his hazardous waste permit application with the Ohio EPA (ORC 3734.42(A)). The disclosure statement and the investigative report provided by the Attorney General will, form a basis along with the complete and technically adequate permit application for the State's determination on the permit renewal. If there are questions concerning the disclosure statement please contact Bryan Zima, of the OAG at (614) 466-2766.

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Mr. Hukill Page 4

Yours truly,

E.A. Kitchen, Manager

Technical Assistance and Engineering Section Division of Solid and Hazardous Waste Management

EAK/RFB/pas

cc: Lisa Pierard, USEPA
Joel Morbito, USEPA
Ed Lim, CO, DSHWM, OEPA
Robert F. Babik, CO, DSHWM, OEPA
Paul Anderson, NEDO, Ohio EPA

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# ATTACHMENT A THE DIVISION OF SOLID AND HAZARDOUS WASTE MANAGEMENT. COMMENTS ON HUKILL CHEMICAL CORPORATION PART B APPLICATION

I. Closure Plan
40CFR 264.115; OAC 3745-50-44(A)(13); OAC 3745-55-15

Failure to provide a statement that within 60 days of the completion of final closure, closure certification will be submitted to the Director of the Ohio EPA and the Regional Administrator of U.S. EPA.

#### HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD · BEDFORD, OHIO 44146-4493 · 216 / 232-9400

Over Forty Years of Quality Products and Services

February 24, 1989

Ms. Lisa Pierard RCRA Activities Part B Application U.S. EPA - Region V Chicago, Illinois 60690-3587

Dear Lisa,

The enclosed is Hukill Chemical Corporation's response to the "Initial Completeness Review Deficiency Comments" included in Mr. E. A. Kitchen's January 24, 1989 memo to Mr. Robert Hukill. The reference on Mr. Kitchen's memo was #OHD 001 926 740, OHIO 02-18-0315. This is Hukill Chemical Corporation's application for Part B.

In addition to responding to the completeness comments, we have tried to revise portions that were not current and clean up some of the typos.

If you have any questions regarding the attached, please call Ed Price or me at Hukill Chemical, (216) 232-9400.

Very truly yours,

HUKILL CHEMICAL CORPORATION

Robert L. Hukill

President

RLH:pk Enclosures

cc: Paul Anderson

Tom Crepeau/Susan Nitecki

053-47

Francish

#### CERTIFIED MAIL

RE: Hukill Chemical Corp. Re # OHD 001 926 740 OHIO 02-18-0315 January 24, 1989

Mr. Robert L. Hukill Hukill Chemical Corp. 7013 Krick Road Bedford, Ohio 44146-4493

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Dear Mr. Hukill:

Thank you for submitting Part B of the Resource Conservation and Recovery Act (RCRA) permit application for your facility pursuant to both the State and Federal Part B call-in.

As you may know, Ohio, which has a State hazardous waste program, has not yet been delegated full authority to conduct the federal hazardous waste program. As a result, hazardous waste facilities operating in Ohio must obtain both a State and Federal RCRA permit. However, pursuant to an agreement reached with U.S. EPA, Ohio EPA is conducting initial "completeness" reviews and making "completeness" determinations on behalf of the U.S. EPA for facilities that store or treat hazardous waste in containers and tanks. In other words, until such time as the State is authorized to conduct the federal hazardous waste program, Ohio EPA will examine RCRA permit applications to ascertain whether or not the application contains all required information in order to be deemed "complete" and thereafter Ohio EPA and U.S. EPA will concurrently review the permit application for technical adequacy.

The Ohio EPA Division of Solid and Hazardous Waste Management has conducted a "completeness" review of your Part B application and has determined it to be incomplete. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapter in the Ohio Administrative Code and the corresponding Federal regulations.

We have enclosed comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to

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Robert L. Hukill Page 2

Ohio EPA within 30 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

- 1. Old language is over-struck.
- 2. New language is capitalized
- 3. Page headers should indicate date of submission.
- 4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

Please send one copy each to:

Tom Crepeau/Susan Nitecki, Ohio EPA, DSHWM 1800 WaterMark Drive P.O. Box 1049 Columbus, Ohio 43266-0149

Paul Anderson, Ohio EPA, DSHWM, NEDO 2110 East Aurora Rd. Twinsburg, Ohio 44087

Lisa Pierard, RCRA Activities Part B Application U.S. EPA - Region V Chicago, Illinois 60690-3587

Upon receipt of a satisfactory response regarding all the information requested, Ohio EPA will notify you in writing that the application is

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Robert L. Hukill Page 3

complete. Our determination of completeness will mean that all items required by regulation appear to have been addressed in your application, but does not mean that these items have been addressed substantively or in adequate detail which would allow a determination to be made as to whether the proposal complies with the Director's Hazardous Waste Facility Standards Chapters. We may request additional information from you, if it is necessary to clarify, modify or supplement previous submissions of information in order to substantively evaluate the permit application for technical adequacy.

Failure to submit a complete permit application or to correct deficiencies in the application may result in the following: 1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, 2) denial of the application for a renewal permit, 3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action, or 4) the application for a renewal permit may be returned to you as incomplete.

If you have any questions concerning the review of the permit application, or the level of detail we expect, please do not hesitate to contact Susan Nitecki, at (614) 644-2956.

Finally, as you may know, Ohio's hazardous waste law was recently amended to authorize the Attorney General to conduct background investigations on permittees and applicants for permits for hazardous waste treatment, storage and disposal facilities. Every applicant must file a disclosure statement with both the Ohio EPA and the Attorney General on a form developed by the Attorney General, at the same time that the applicant files his hazardous waste permit application with the Ohio EPA (ORC 3734.42(A)). The disclosure statement and the investigative report provided by the Attorney General will, form a basis along with the complete and technically adequate permit application for the State's determination on the permit renewal. If there are questions concerning the disclosure statement please contact Bryan Zima, of the OAG at (614) 466-2766.

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Robert L. Hukill Page 4

Yours truly,

Edward A. Leteken E.A. Kitchen, Manager

Technical Assistance and Engineering Section Division of Solid and Hazardous Waste Management

cc: Lisa Pierard, USEPA
Paul Anderson, NEDO
Susan Nitecki, CO
Ed Lim, CO

1698U

#### Hukill Chemical Corporation Initial Completeness Review Deficiency Comments

- 1. OAC 3745-50-43(A)(5), 40 CFR 270.13(h)(2) Failure to provide photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.
- 2. OAC 3745-55-75(C), 40 CFR 264.175(c) Failure to provide, by use of an acceptable analytical method, for demonstration that free liquids are not present in containers stored on the East Pad area.
- 3. OAC 3745-54-13(A)(1), 40 CFR 264.13(a)(1) ORC 3734.05(G)(1), 40 CFR 264.191(b)(2) Failure to provide hazardous characteristics of the wastes that have been and will be handled in tanks.
- 4. ORC 3734.05(G)(1), 40 CFR 264.193 Failure to demonstrate compliance with 40 CFR 264.193 regarding containment and detection of releases for tank systems and components, or to demonstrate that 40 CFR 264.193 is not applicable under 264.193(a).
- 5. OAC 3745-54-51(A), 40 CFR 270.14(b)(7) Failure to include, in the contingency plan, the facility name and location, operator, site plan, and description of facility operations.
- 6. ORC 3745-54-51(A), 40 CFR 264.197(c) Failure to demonstrate compliance with 40 CFR 264.197(c) regarding closure requirements for tank systems that do not have secondary containment.
- 7. OAC 3745-55-51, 40 CFR 264.151(j) Failure to provide Exhibit 5 of Appendix B as referenced in Section I, p. 5 of the application in regard to demonstration of liability insurance.

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7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400

Over Forty Years of Quality Products and Services

January 13, 1989

Ms. Francine Norling U S EPA Waste Management Branch 230 S. Dearborn Avenue Chicago, Illinois 60604

Re: Part B

US EPA I.D. No. OHD001926740 Ohio Permit No. 02-18-0315

Dear Francine:

Enclosed is an addition to Section A of Part A, of our Part B Application. This is being submitted to Ohio EPA on this date.

Should you have any questions, please phone me at (216) 232-9400.

Very truly yours,

HUKILL CHEMICAL CORPORATION

Robert L. Hukill

President

RLH:dk

Enclosures

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7013 KRICK ROAD · BEDFORD, OHIO 44146-4493 · 216 / 232-9400

Over Forty Years of Quality Products and Services

January 18, 1988

Ms. Francine Norling U.S. EPA Waste Management Branch 230 S. Dearborn Avenue Chicago, Illinois 60604

Dear Ms. Norling:

Enclosed is a copy of Hukill Chemical Corporation's Listing of Safety and Emergency Equipment and a map of where the equipment is found. Please revise your copies of Hukill Chemical's Part B application.

If you have any questions regarding the enclosed, please don't hesitate to call.

Very truly yours,

HUKILL CHEMICAL CORPORATION

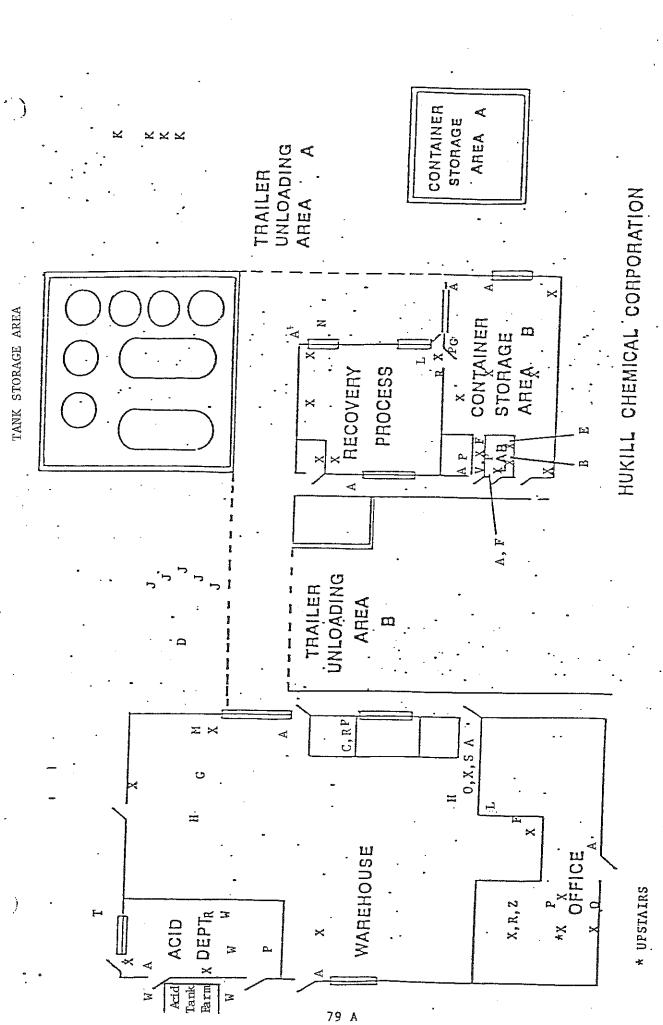
Robert L. Hukill

President

RLH:kk

Enclosures





LOCATION OF SAFETY AND EMERGENCY EQUIPMENT

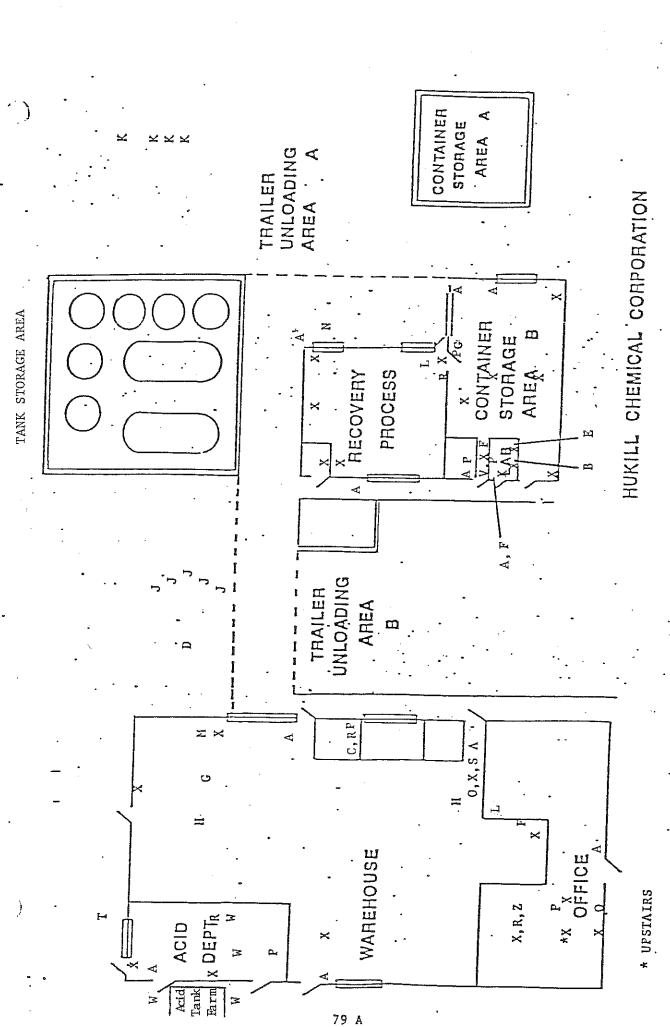
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#### SAFETY AND EMERGENCY EQUIPMENT

- A. Fire alarm pulls
- B. Fire blanket
- C. Self contained breathing equipment
- D. Fire hydrant
- E. Main electrical switch
- F. First aid station
- G. Emergency supply cabinets
- H. Hose connected to sprinkler system
- J. Fire wall
- K. A.P.I. separator and spill basin
- L. Emergency lighting
- M. Fire skid with foam for tank fires
- N. Skids with spill treatment absorbent and assessories
  - O. Oxygen (dial 201)
  - P. Telephone and intercom
  - R. Organic vapor respirator
  - S. Stretcher
  - T. 250,000 gal.  $\mathrm{H}_2\mathrm{O}$  tank, heated, for sprinklers
  - V. Vent switch
  - W. Emergency eye wash
  - X. Portable fire extinguishers
  - Z. Cutting torch

KEY FOR FIGURE G 2

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LOCATION OF SAFETY AND EMERGENCY EQUIPMENT

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#### SAFETY AND EMERGENCY EQUIPMENT

- A. Fire alarm pulls
- B. Fire blanket
- C. Self contained breathing equipment
- D. Fire hydrant
- E. Main electrical switch
- F. First aid station
- G. Emergency supply cabinets
- H. Hose connected to sprinkler system
- J. Fire wall
- K. A.P.I. separator and spill basin
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- V. Vent switch
- W. Emergency eye wash
- X. Portable fire extinguishers
- Z. Cutting torch

KEY FOR FIGURE G 2

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7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400

Over Forty Years of Quality Products and Services

December 11, 1987

Ms. Francine Norling U.S. EPA Waste Management Branch 230 S. Dearborn Avenue Chicago, Illinois 60604

Dear Ms. Norling:

Enclosed is a copy of Hukill Chemical Corporations Emergency Cordinators and Closure Cost Estimate sheets. Please revise your copies of Hukill Chemicals Part B application.

If you have any questions regarding the enclosed, please don't hesitate to call.

Very truly yours,

HUKILL CHEMICAL CORPORATION

Robert L. Hukill

President

RLH:kk

Enclosures

VOX 15 CONTRACTOR OF THE CONTR

#### I-4 Closure Cost Estimate

### Schedule A Continued

# CURRENT COST ESTIMATE FOR FACILITY CLOSURE HUKILL CHEMICAL CORPORATION December, 1987

TANKS					
		Capacity		Total	
Numbe	<u>r</u>	in Gallons		Gallons	
7		14,000		98,000	
1		17,000		17,000	
. 2		6,000		12,000	
1 (	spent acid)	12,000		127,000	
+ (	spent acid)	12,000		$\frac{12,000}{139,000}$	
				137,000	
Dispo	sal Cost				· •
Solid	s 3,000 g	allons - clean	out tanks		\$ 6,000
				um @50 each	2,750
Liqui	d 124,000 g	allons -		@ .35 each	43,400
	127,000 g	allons			43,400
Spent Aci	d 12,000 g	allons -		@ 1.80/gal.	21,600
CONTAINERS					
Numbe	r	Capacity in Gallons		Total	
	<u>.                                     </u>			<u>Gallons</u>	•
1,000		55		55,000	•
. Dispos	sal Cost				
Solid		. 1.1			
20110:	s 1,3/5 ga	allons - fuels	mix, 25 dr	um @50. each	\$ 1,250
Liquio	i 53,625 ga	allons -		. @ .35 each	18,769
	55,000			c 103 000m	93,769
DEGOME MATERIAL PROPERTY.					·
DECONTAMINATION					
Cont	taminated Sc	oil			5,000
Clea	an Up Contai	inment areas		•	3,000
		n of Equipment			
		despirent			2,000
CONTINGENCY					10,000

Closure Cost

-			
	e e		

#### G-2 EMERGENCY COORDINATORS

1. Robert Hukill - President Primary Coordinator

Personally Identifiable

Personally Identifiable Info

Work Phone: 216-232-9400

Home Phone: Personally

2. Robert Lang - Production Supervisor

Personally

Personally Identifiable Info

Work Phone: 216-232-9400

Home Phone: Personally

3. Steve Schillinger - Maintenance Supervisor

Personally Identifiable

Personally

Work Phone: 216-232-9400

Home Phone: Personally

The above listed emergency coordinators are hereby authorized to commit necessary resources to repond to rectify any emergency situation requiring the implementation of this contingency plan.

Robert L. Hukill - President

Signature Rollst / Herbill

Date 12 /9/8)

-			
	•		

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

OATE: 15 APR 1987

SMBJECT: Contractor Assistance for Part & Permit Application Review

Hukil Chemical Company - SHD 001926740

FROM: James B. Hayka, Acting Chief

Technical Progress Section

TO: Judy Kertcher, Chief

Program Management Section

I am requesting contractor assistance for review of the revised part a application submitted by Hukil Chemical Company on March 23, 1987. We need a completeness and technical adequacy review of the Part 9 application. If the application is deficient, we request the contractor to prepare a Motice of Deficiency. We need this work completed by May 29, 1987:

cc: Lisa Pierard Pat Wagiman

5HS/Norling:vw

3/30/87

Disk 2

7013 KRICK ROAD . BEDFORD, OHIO 44146 . 216/232-9400

Over Thirty-Five Years of Quality Products and Services



March 25, 1986 APR 2 3 1986

SOLID WASTE BRANCH U.S. EPA, REGION V

Ms. Rebecca Strom US EPA RCRA Section 213 Dearborn Ave. Chicago, Illinois

Dear Ms. Strom:

Attached are the latest updates to our Part B. These sections are Part A, additional tanks, the addition of the Spent Acid operation and the storage tank, also the update of Cadence Product 312 (Hazardous Waste derived Chemical Feed Stock that is burned in the iron making blast furnace).

If you have any questions about these sections please give me a call.

Very truly yours,

HUKILL CHEMICAL CORPORATION

Robert L. Hukill

President

RLH/cb

**Enclosures** 

cc: Chris Bauer OEPA, Eng. Section, Columbus Kris Coder OEPA, NEDO Twinsburg



053-24

MAY 24 1985

CERTIFIED MAIL RETURN RECEIPT REQUESTED Robert Hukill Hukill Chemical Company 7013 Krick Road Bedford, Ohio 44146

> Corrective Action Requirements. Hazardous and Solid Waste Amendments of 1984 Hukill Chemical Company OHD 001 926-740

Dear Mr. Hukill:

As you know, we are currently reviewing Part B of the Resource Conservation and Recovery Act (RCRA) permit application for the above-referenced facility.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (the Amendments) were enacted to modify RCRA. Under Section 206 (copy enclosed) of the Amendments, all RCRA permits issued after the date of enactment must provide for corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit. Please note that both hazardous and non-hazardous waste can meet the definition of solid waste under 40 CFR 261.2.

Consequently, we must determine whether such releases have ever occurred at the facility site. If they have, we must ensure that corrective actions either have been taken, or will be taken, pursuant to a RCRA permit. An important part of our determination includes your willingness (or unwillingness) to sign the enclosed certification statement. Please read it carefully, and either sign it and return it, or return it to us unsigned with a cover letter of explanation, within three weeks of the date of this letter. Any information regarding releases of hazardous waste or hazardous constituents to the environment will be evaluated during the permit review process. Any tentative decision we make concerning your permit application will be public noticed in a newspaper of general circulation in the area of the facility.

Please contact the previously identified permit writer with our Agency for additional information.

Sincerely yours, David A. Stringham, Acting Chief Solid Waste Branch

Enclosures

AUTHOR STU #1 STU #2 STU #3 TPS CHIEF CHIEF CHIEF

CMW WMB CHIEF DIRECTU.

